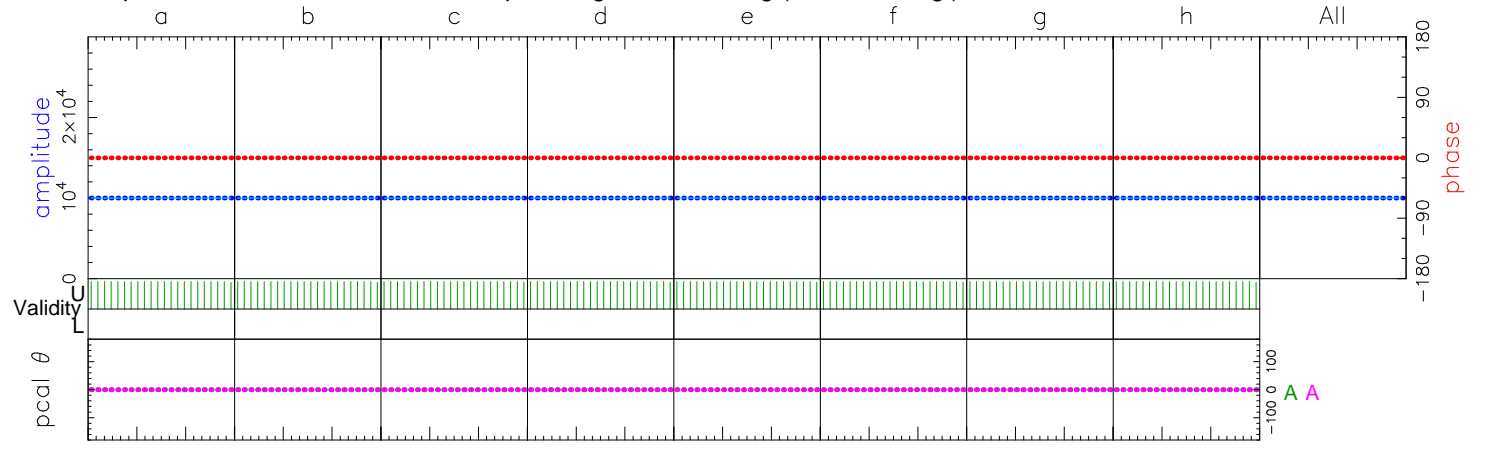


Fringe quality 9  
SNR 366880.2  
Int time 179.992  
Amp 9999.999  
Phase 0.0  
PFD 0.0e+00  
Delays (us)  
SBD 0.000000  
MBD 0.000000  
Fringe rate (Hz) 0.000000  
Ion TEC 0.000  
Ref freq (MHz) 43140.0000  
AP (sec) 0.512  
Exp. c241d  
Exper # 1234  
Yr:day 2024:113  
Start 094000.00  
Stop 094300.22  
FRT 094130.00  
Corr/FF/build  
2024:332:222845  
2025:042:151732  
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



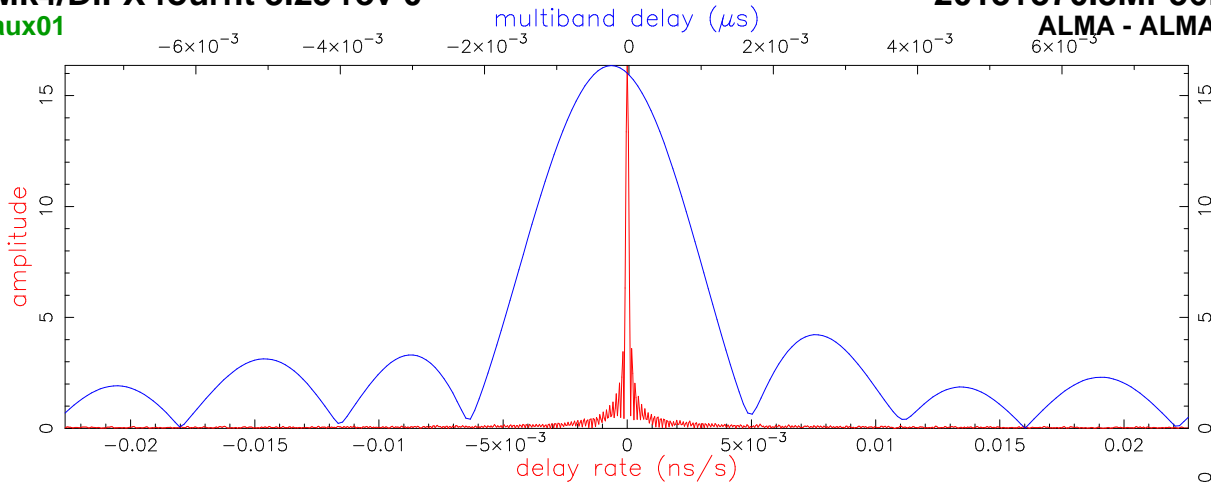
	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0	Ampl.	10000.0
A:A	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
A:A	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	PC phase	
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	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 +/- 2.0E-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 +/- 1.9E-13
Total phase (deg)			0.0						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)	-0.023	0.023		
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	
A: az 14.3 el 27.9 pa -163.6		A: az 14.3 el 27.9 pa -163.6		u,v (fr/asec) 0.000						simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/c241d/v1/7mm/1234/No0500//AA..3MP56K								Output file: /Exps/c241d/v1/7mm/1234/No0500//AA.Q.1.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

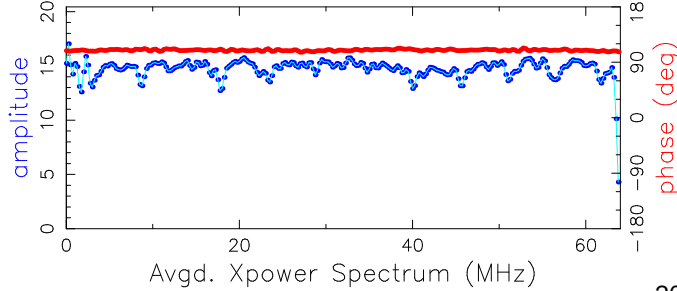
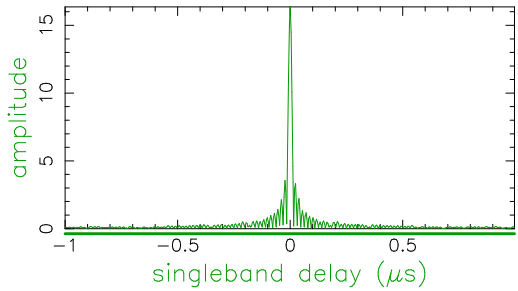
2013+370.3MP56K, No0500, AA

ALMA - ALMA, fgroup Q, pol XY



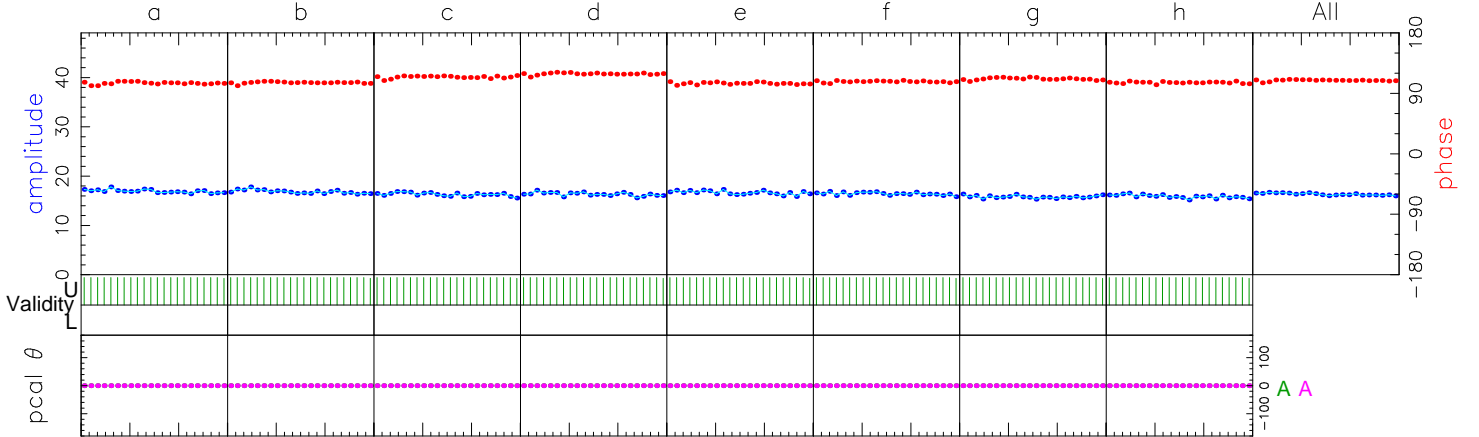
Fringe quality 9

SNR 600.3  
 Int time 179.992  
 Amp 16.363  
 Phase 109.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.000289  
 MBD -0.000245  
 Fringe rate (Hz) 0.000059  
 Ion TEC 0.000  
 Ref freq (MHz) 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151737  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	105.1	105.9	114.2	118.9	104.8	107.4	111.5	105.9	Phase	109.2
	16.9	16.9	16.3	16.4	16.7	16.4	15.8	15.9	Ampl.	16.4
	256.8	257.0	257.0	256.9	257.1	257.0	256.9	256.7	Sbd box	256.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
A	0	0	0	0	0	0	0	0	PC freqs	
A:A	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:A	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
A	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Tracks	

Group delay (usec) (SBD)	-2.44750000000E-04	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-2.44750E-04	+/-	1.8E-06
Sband delay (usec)	-2.89250000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-2.89250E-04	+/-	1.4E-05
Phase delay (usec)	7.02970991996E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	7.02971E-06	+/-	1.2E-08
Delay rate (us/s)	1.36388242537E-09	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.36388E-09	+/-	1.2E-10
Total phase (deg)	109.2	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	109.2	+/-	0.2

ph/seg (deg)	1.1	Theor.	0.4	Amplitude	16.363 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	1.3		0.8	Search (1024X32)	15.941	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	5.5		0.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	2.4		0.5	Inc. seg. avg.	16.356	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
				Inc. frq. avg.	16.411	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
							ion window (TEC) 0.00 0.00

A: az 14.3 el 27.9 pa -163.6      A: az 14.3 el 27.9 pa -163.6      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

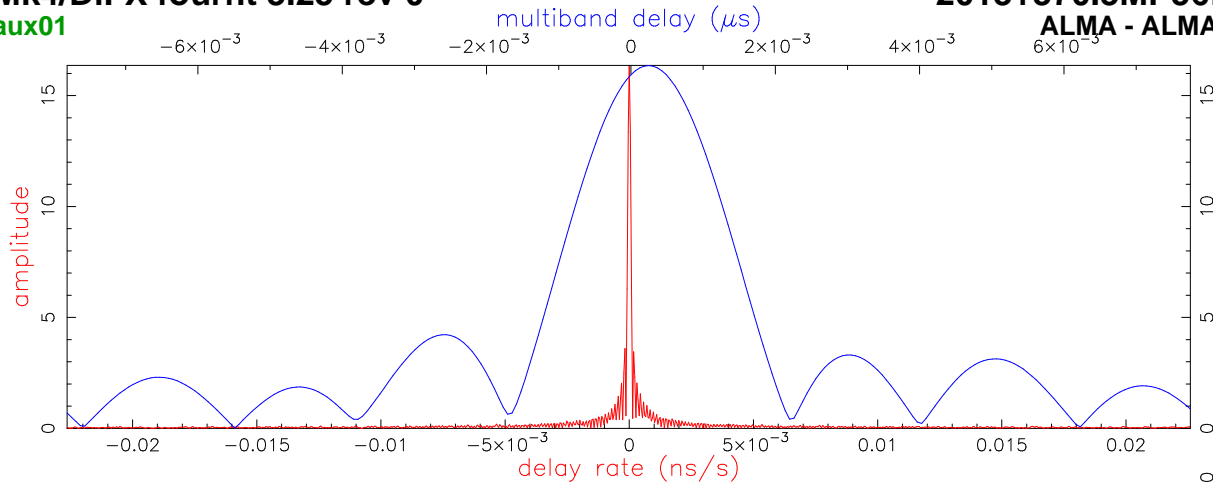
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//AA..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//AA.Q.15.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

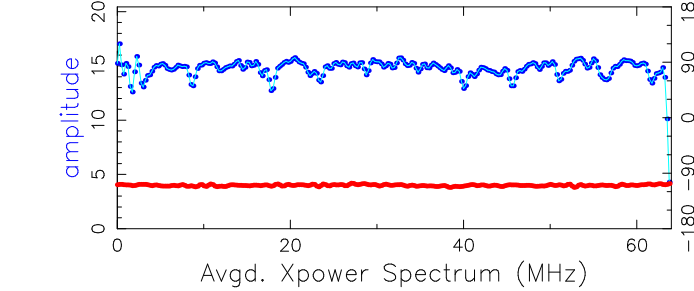
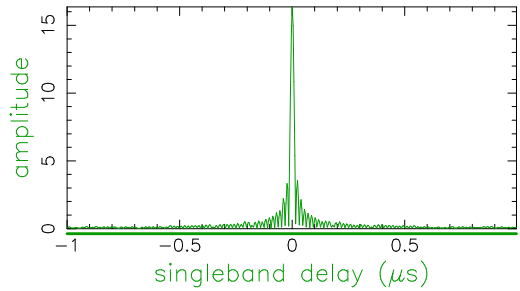
2013+370.3MP56K, No0500, AA

ALMA - ALMA, fgroup Q, pol YX



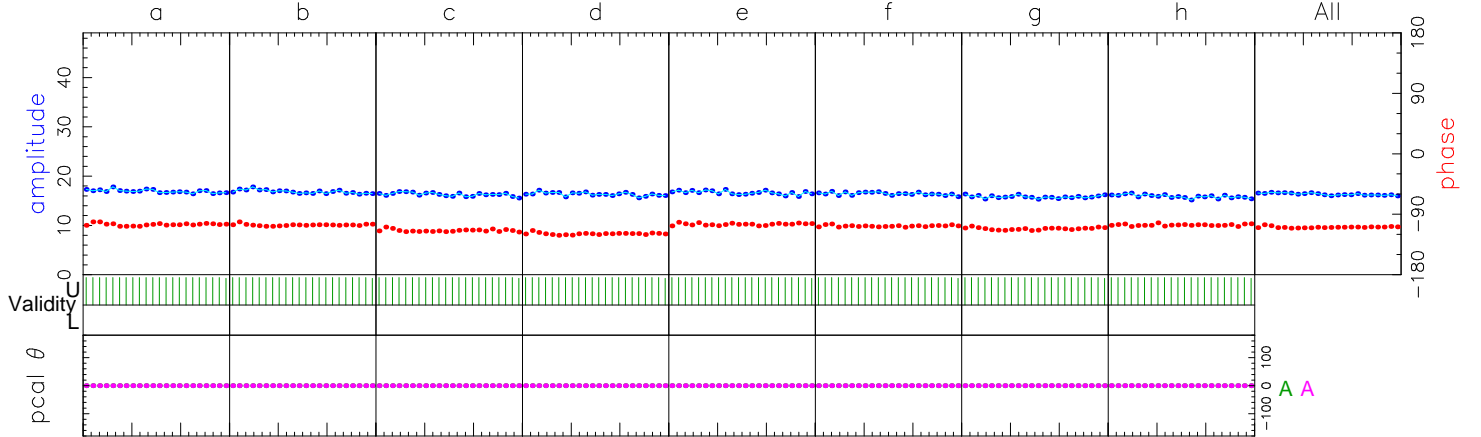
Fringe quality 9

SNR 600.3  
 Int time 179.992  
 Amp 16.363  
 Phase -109.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000289  
 MBD 0.000245  
 Fringe rate (Hz)  
 -0.000059  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151739  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-105.1	-105.9	-114.2	-118.9	-104.8	-107.4	-111.5	-105.9	Phase	-109.2
	16.9	16.9	16.3	16.4	16.7	16.4	15.8	15.9	Ampl.	16.4
	257.2	257.0	257.0	257.1	256.9	257.0	257.1	257.3	Sbd box	257.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
A	0	0	0	0	0	0	0	0	PC freqs	
A:A	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:A	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
A	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Tracks	

Group delay (usec) (SBD)	2.447500000000E-04	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	2.44750E-04	+/-	1.8E-06
Sband delay (usec)	2.892500000000E-04	Apriori clock (usec)	0.000000000000E+00	Resid sbdelay (usec)	2.89250E-04	+/-	1.4E-05
Phase delay (usec)	-7.02970991996E-06	Apriori clockrate (us/s)	0.000000000000E+00	Resid phdelay (usec)	-7.02971E-06	+/-	1.2E-08
Delay rate (us/s)	-1.36388242537E-09	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	-1.36388E-09	+/-	1.2E-10
Total phase (deg)	-109.2	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	-109.2	+/-	0.2

	RMS	Theor.	Amplitude	16.363 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	1.1	0.4	Search (1024X32)	15.941	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	1.3	0.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	5.5	0.3	Inc. seg. avg.	16.356	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
amp/frq (%)	2.4	0.5	Inc. frq. avg.	16.411	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

A: az 14.3 el 27.9 pa -163.6      A: az 14.3 el 27.9 pa -163.6      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

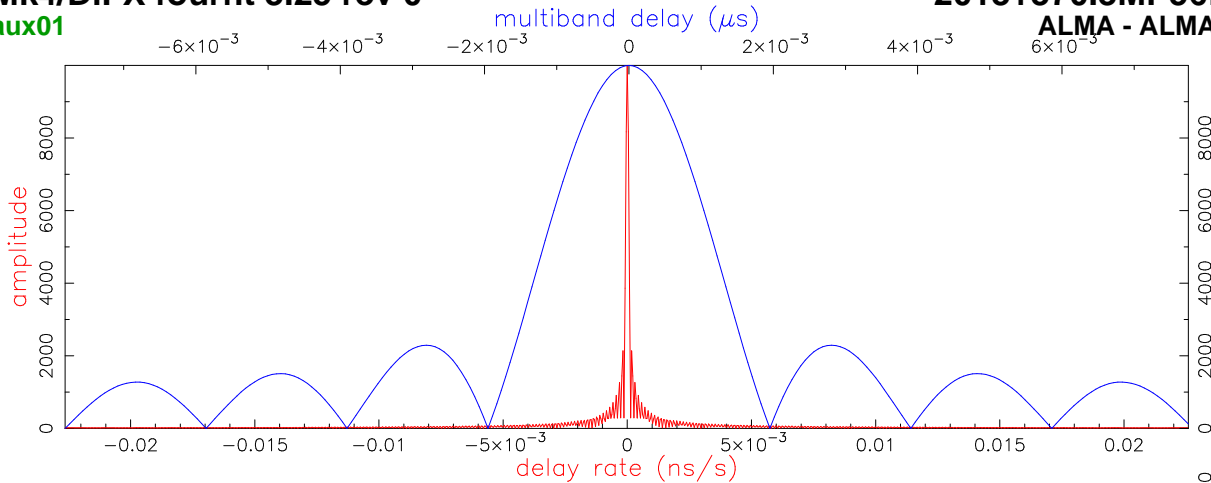
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//AA..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//AA.Q.27.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

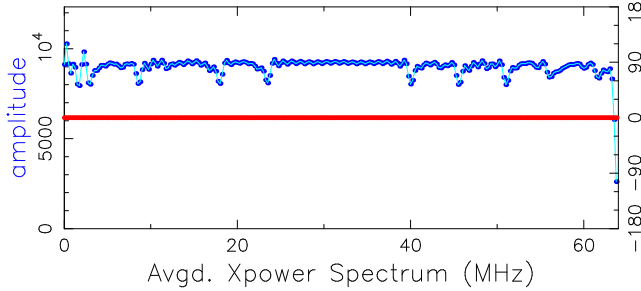
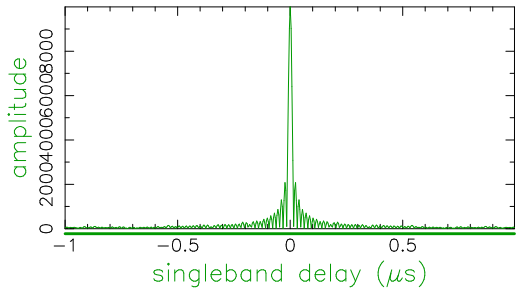
2013+370.3MP56K, No0500, AA

ALMA - ALMA, fgroup Q, pol YY



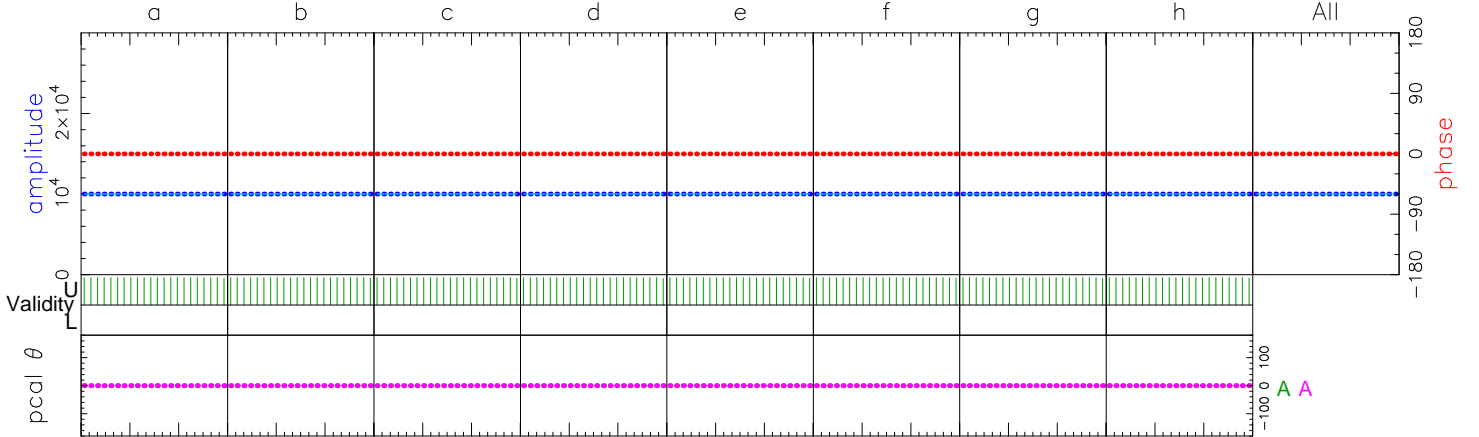
Fringe quality 9

SNR 366880.2  
 Int time 179.992  
 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)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151734  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
A:A	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:A	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
A	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		

Group delay (usec) (SBD)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	3.0E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	2.3E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	2.0E-11
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	1.9E-13
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

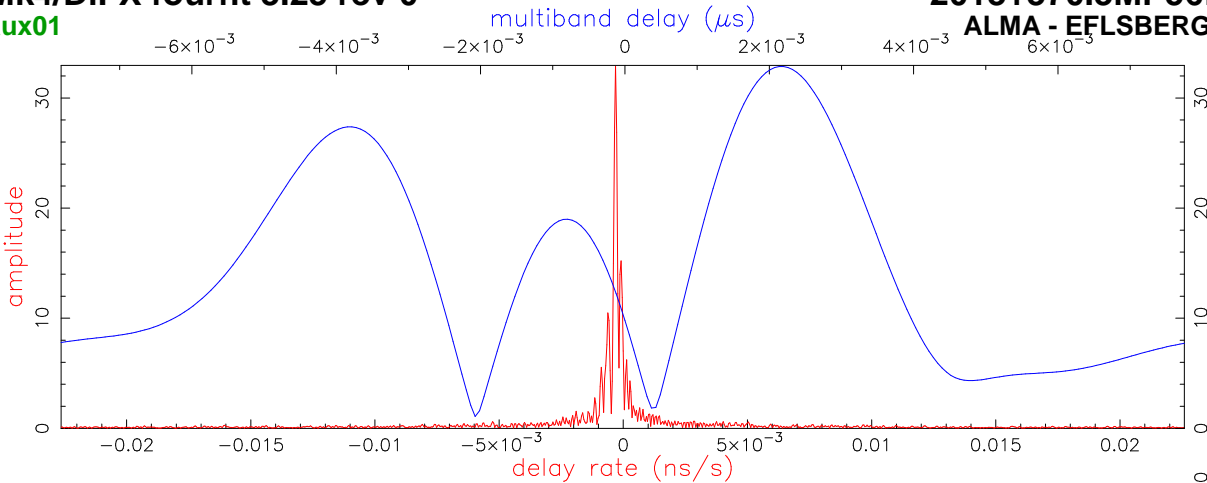
ph/seg (deg) 0.0 0.0 Search (1024X32) 9999.999 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 A: az 14.3 el 27.9 pa -163.6 A: az 14.3 el 27.9 pa -163.6 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AA..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AA.Q.7.3MP56K simultaneous interpolator

Mk4/DiFX fourfit 3.25 rev 0

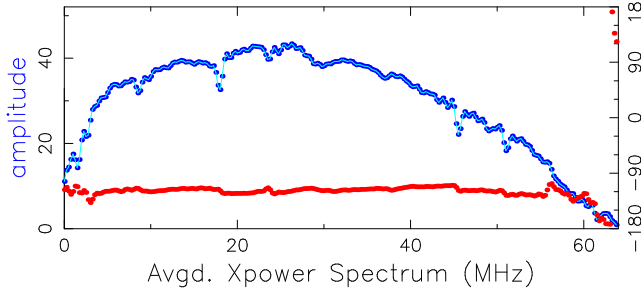
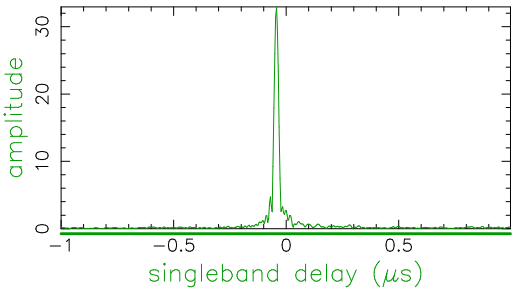
aux01

2013+370.3MP56K, No0500, AB

ALMA - EFLSBERG, fgroup Q, pol YR

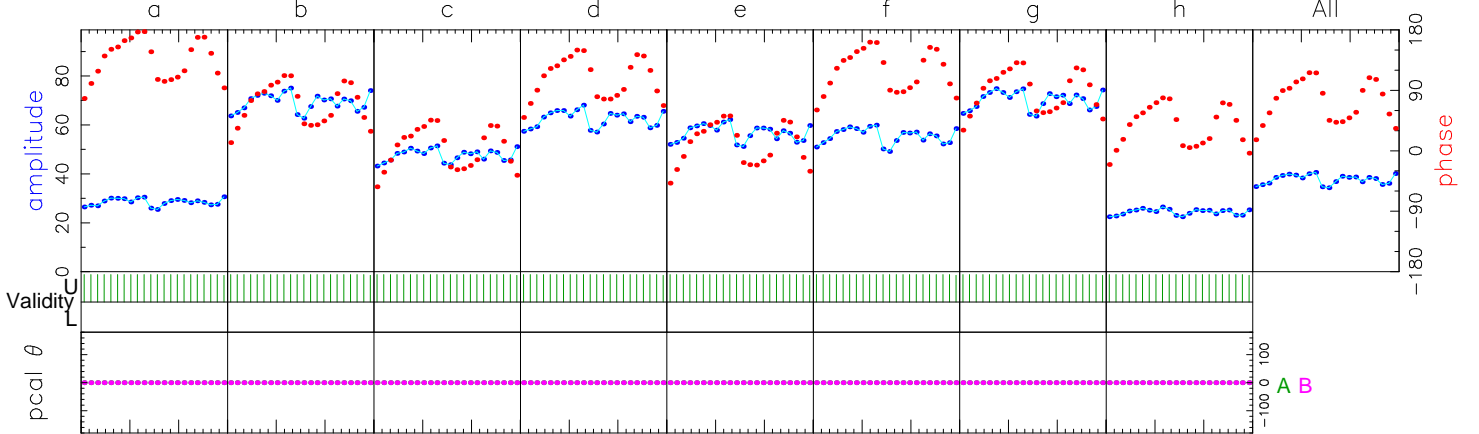


Fringe quality 3  
 Error code G  
 SNR 1209.0  
 Int time 179.963  
 Amp 32.958  
 Phase -173.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.043741  
 MBD 0.002168  
 Fringe rate (Hz)  
 -0.012765  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151736  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	135.6	69.7	4.1	108.3	10.4	119.3	88.7	36.4	Phase	74.3
	24.8	60.4	41.6	54.4	49.4	48.2	61.0	21.3	Ampl.	45.1
	250.0	245.8	244.9	245.0	244.6	244.9	246.3	251.3	Sbd box	245.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
B	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) -7.48101822921E+03 Apriori delay (usec) -7.48097352171E+03 Resid mbdelay (usec) 2.16751E-03 +/- 9.0E-07  
 Sband delay (usec) -7.48101726271E+03 Apriori clock (usec) -2.0720293E+03 Resid sbdelay (usec) -4.37410E-02 +/- 7.1E-06  
 Phase delay (usec) -7.48097351693E+03 Apriori clockrate (us/s) 1.7870709E-07 Resid phdelay (usec) 4.78471E-06 +/- 6.1E-09  
 Delay rate (us/s) 9.79808479603E-01 Apriori rate (us/s) 9.79808775498E-01 Resid rate (us/s) -2.95895E-07 +/- 5.9E-11  
 Total phase (deg) -74.8 Apriori accel (us/s/s) -5.04968903980E-05 Resid phase (deg) -173.2 +/- 0.1

RMS Theor. Amplitude 32.958 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 29.7 0.2 Search (1024X32) 31.484 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 15.7 0.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 54.2 0.1 Inc. seg. avg. 37.755 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 56.5 0.2 Inc. frq. avg. 45.121 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

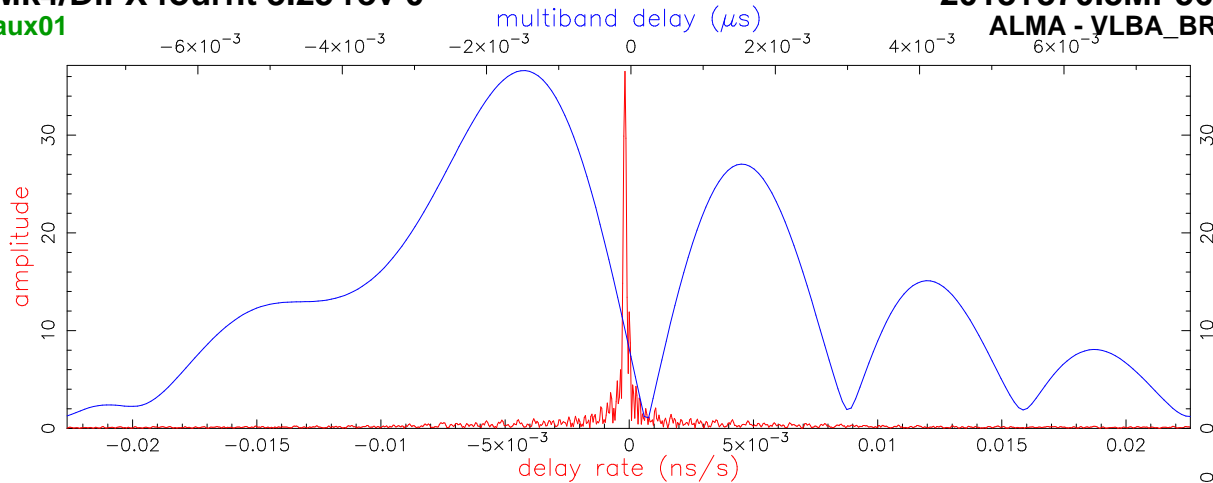
A: az 14.3 el 27.9 pa -163.6 B: az 275.5 el 46.9 pa 52.6 u,v (fr/asec) -3560.330 -5586.561 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AB..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AB.Q.11.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

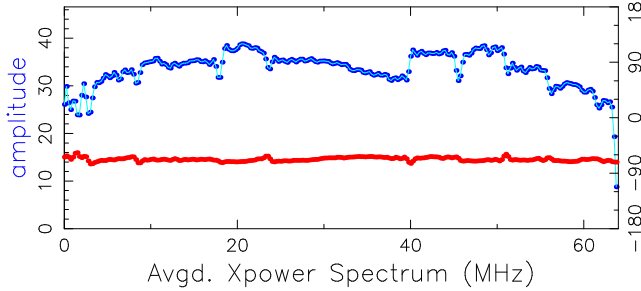
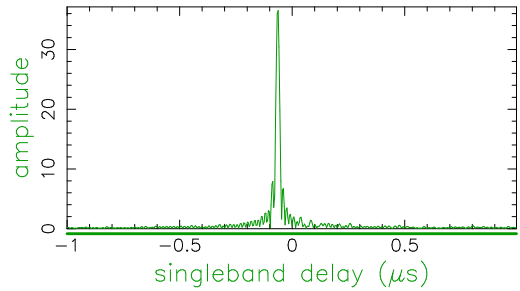
2013+370.3MP56K, No0500, Ab

ALMA - VLBA\_BR, fgroup Q, pol XR



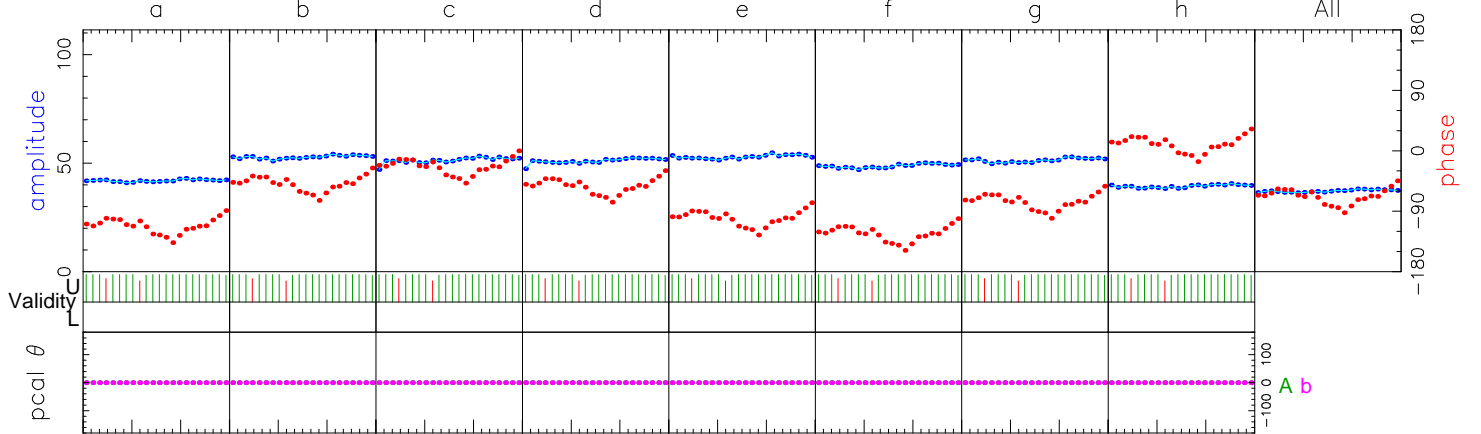
Fringe quality 6

SNR 1349.8  
 Int time 176.661  
 Amp 37.139  
 Phase -157.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.064123  
 MBD -0.001565  
 Fringe rate (Hz)  
 -0.008169  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151736  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-111.8	-49.1	-23.8	-52.6	-100.5	-123.6	-75.8	9.6	Phase	-67.9
	41.2	51.8	50.4	50.1	51.9	47.8	50.4	38.6	Ampl.	47.8
	242.3	240.6	240.6	240.4	240.7	240.2	240.8	242.5	Sbd box	240.6
U/L	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
b	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-5.97206297926E+03	Apriori delay (usec)	-5.97199891395E+03	Resid mbdelay (usec)	-1.56531E-03	+/-	8.0E-07
Sband delay (usec)	-5.97206303670E+03	Apriori clock (usec)	-2.1120449E+03	Resid sbdelay (usec)	-6.41228E-02	+/-	6.4E-06
Phase delay (usec)	-5.97199891833E+03	Apriori clockrate (us/s)	-5.8727285E-07	Resid phdelay (usec)	-4.37408E-06	+/-	5.5E-09
Delay rate (us/s)	-4.57972990138E-01	Apriori rate (us/s)	-4.57972800787E-01	Resid rate (us/s)	-1.89350E-07	+/-	5.3E-11
Total phase (deg)	-211.2	Apriori accel (us/s/s)	-5.68697244773E-05	Resid phase (deg)	-157.9	+/-	0.1

ph/seg (deg)	11.1	0.2	Search (1024X32)	35.967	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	1.5	0.3	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)	49.5	0.1	Inc. seg. avg.	37.230	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	31.4	0.2	Inc. frq. avg.	47.792	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6      b: az 76.2 el 40.6 pa -54.6      u,v (fr/asec) 1617.645 -5714.190      simultaneous interpolator

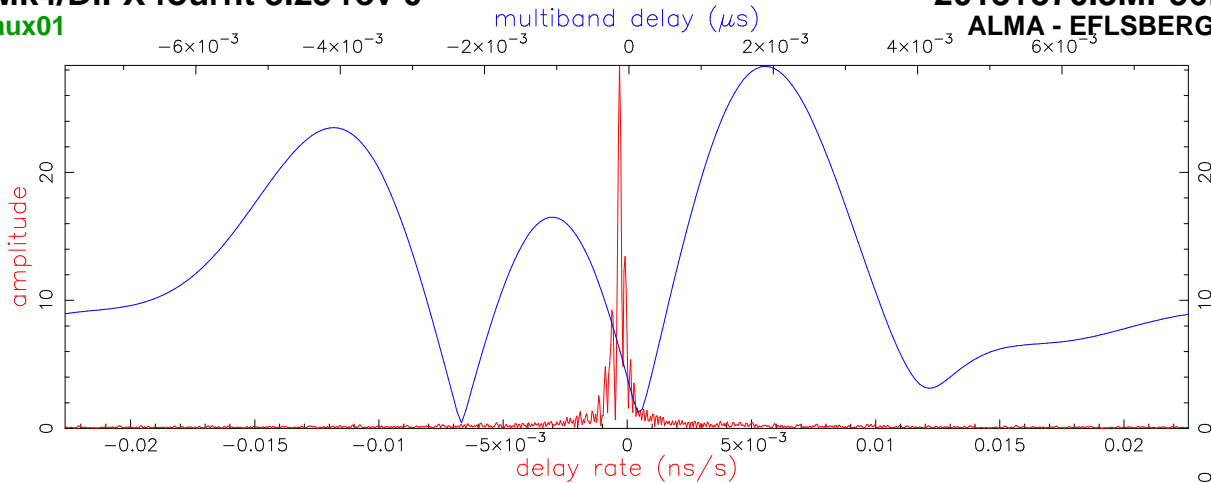
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500/Ab..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500/Ab.Q.12.3MP56K

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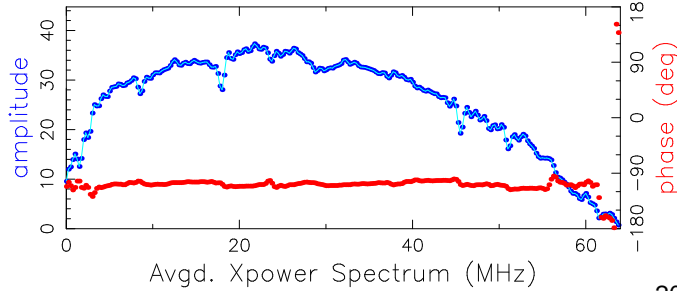
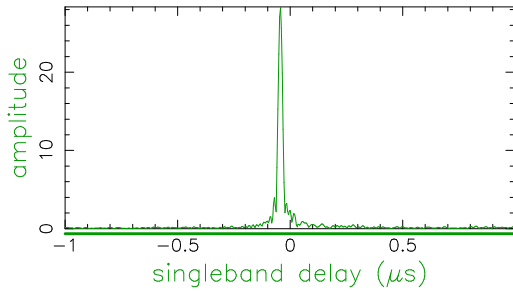
aux01

2013+370.3MP56K, No0500, AB

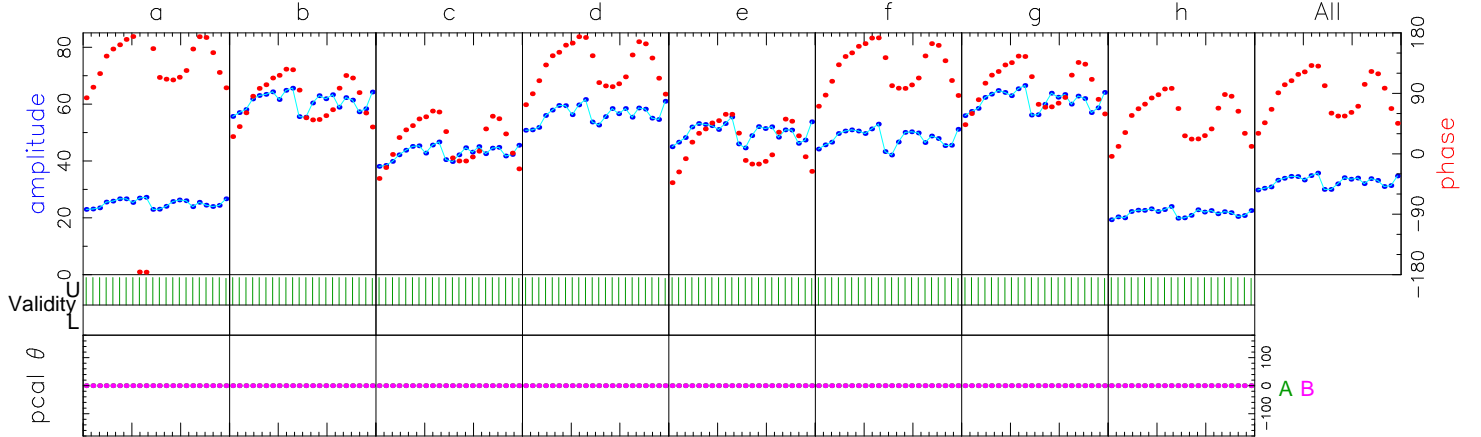
ALMA - EFLSBERG, fgroup Q, pol XR



Fringe quality 3  
 Error code G  
 SNR 1040.4  
 Int time 179.963  
 Amp 28.362  
 Phase -159.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.043727  
 MBD 0.001885  
 Fringe rate (Hz)  
 -0.012700  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512  
 Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151738  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
A:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
B	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
B	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-7.48101851180E+03	Apriori delay (usec)	-7.48097352171E+03	Resid mbdelay (usec)	1.88491E-03	+/-	1.0E-06
Sband delay (usec)	-7.48101724846E+03	Apriori clock (usec)	-2.0720293E+03	Resid sbdelay (usec)	-4.37267E-02	+/-	8.3E-06
Phase delay (usec)	-7.48097351606E+03	Apriori clockrate (us/s)	1.7870709E-07	Resid phdelay (usec)	5.65691E-06	+/-	7.1E-09
Delay rate (us/s)	9.79808481097E-01	Apriori rate (us/s)	9.79808775498E-01	Resid rate (us/s)	-2.94401E-07	+/-	6.8E-11
Total phase (deg)	-61.3	Apriori accel (us/s/s)	-5.04968903980E-05	Resid phase (deg)	-159.6	+/-	0.1

ph/seg (deg)	30.6	RMS	30.6	Theor.	0.3	Amplitude	28.362 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	16.8		0.5			Search (1024X32)	27.575	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	54.0		0.2			Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	58.5		0.3			Inc. seg. avg.	32.780	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	39.522	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6      B: az 275.5 el 46.9 pa 52.6      u,v (fr/asec) -3560.330 -5586.561      simultaneous interpolator

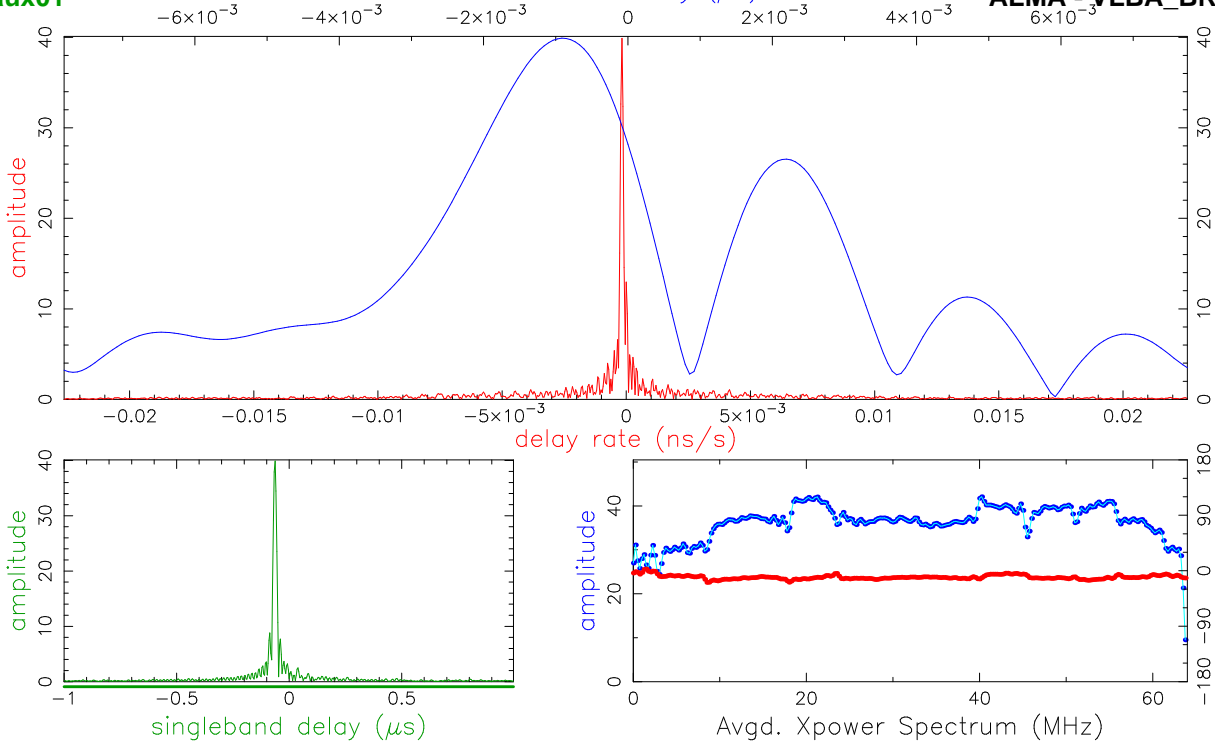
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//AB..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//AB.Q.22.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

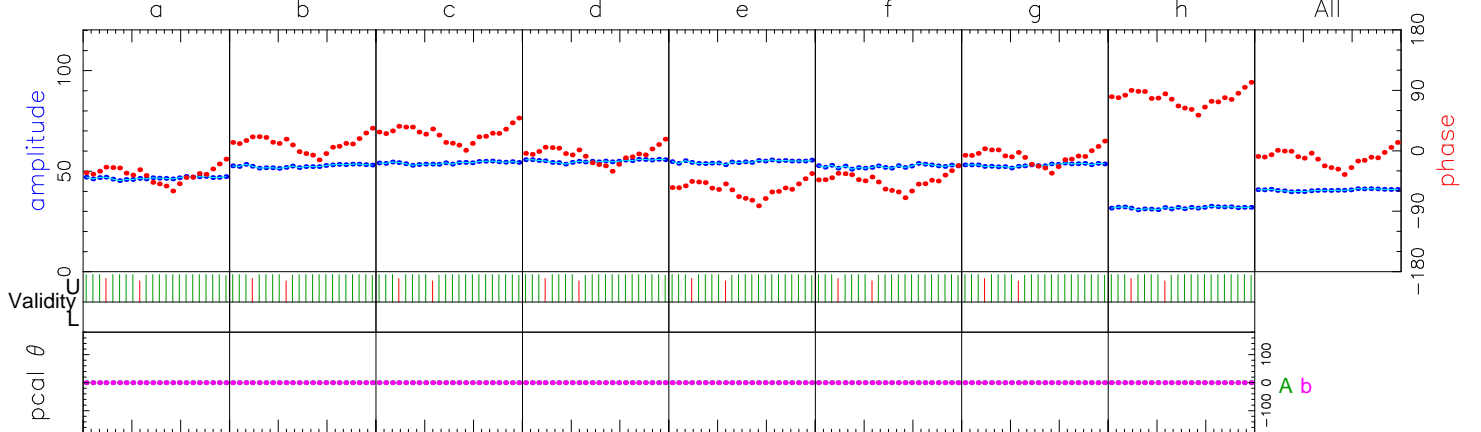
2013+370.3MP56K, No0500, Ab

ALMA - VLBA\_BR, fgroup Q, pol XL



Fringe quality 6  
 SNR 1457.6  
 Int time 176.661  
 Amp 40.102  
 Phase -100.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.063433  
 MBD -0.000945  
 Fringe rate (Hz)  
 -0.008187  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512  
 Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151732  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All	
	-35.2	10.4	25.2	-5.8	-56.8	-44.9	-8.6	78.0	Phase	-10.6	
	45.8	51.6	53.1	54.1	53.6	51.4	52.1	31.2	Ampl.	49.1	
	242.3	240.3	240.7	240.7	240.9	240.9	240.9	243.2	Sbd box	240.8	
U/L	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used		
A	0	0	0	0	0	0	0	0	PC freqs		
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
b	1000	1000	1000	1000	1000	1000	1000	1000			
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids		
b	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	-5.97206235854E+03		Apriori delay (usec)		-5.97199891395E+03		Resid mbdelay (usec)		-9.44590E-04	+/- 7.4E-07	
Sband delay (usec)	-5.97206234745E+03		Apriori clock (usec)		-2.1120449E+03		Resid sbdelay (usec)		-6.34335E-02	+/- 5.9E-06	
Phase delay (usec)	-5.97199891463E+03		Apriori clockrate (us/s)		-5.8727285E-07		Resid phdelay (usec)		-6.79327E-07	+/- 5.1E-09	
Delay rate (us/s)	-4.57972990568E-01		Apriori rate (us/s)		-4.57972800787E-01		Resid rate (us/s)		-1.89781E-07	+/- 4.9E-11	
Total phase (deg)			Apriori accel (us/s/s)		-5.68697244773E-05		Resid phase (deg)		-100.6	+/- 0.1	
	RMS	Theor.	Amplitude	40.102 +/- 0.028		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	11.1	0.2	Search (1024X32)	39.055		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	1.7	0.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	47.5	0.1	Inc. seg. avg.	40.645		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.023 0.023	
amp/frq (%)	28.7	0.2	Inc. frq. avg.	49.103		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
A: az 14.3 el 27.9 pa -163.6		b: az 76.2 el 40.6 pa -54.6		u,v (fr/asec) 1617.645 -5714.190						simultaneous interpolator	
Control file: cf_1234_gmva		Input file: /Exps/c241d/v1/7mm/1234/No0500//Ab..3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500//Ab.Q.2.3MP56K							

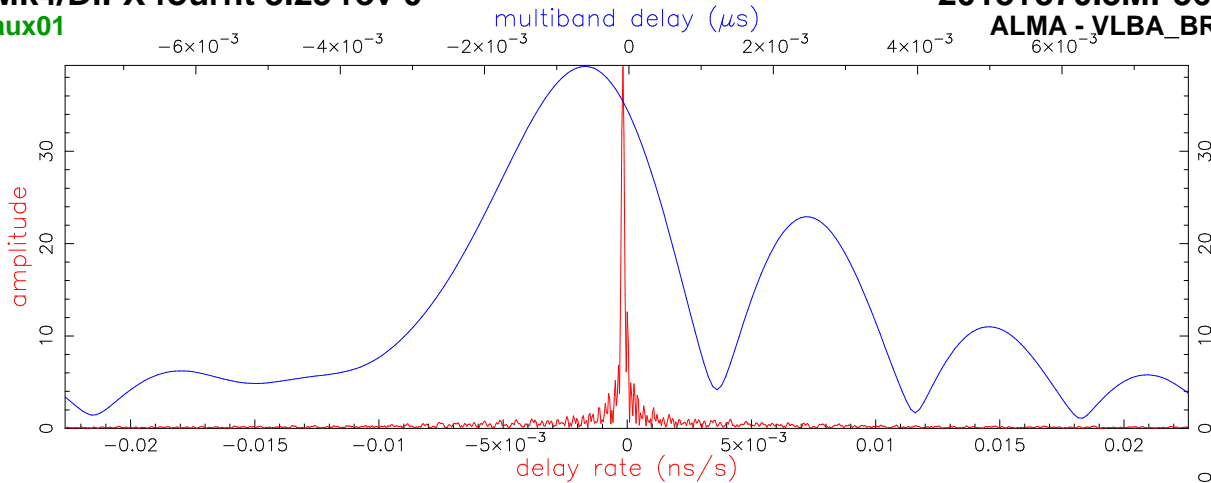


Mk4/DiFX fourfit 3.25 rev 0

aux01

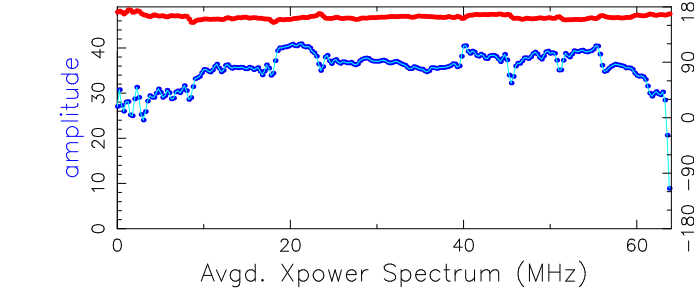
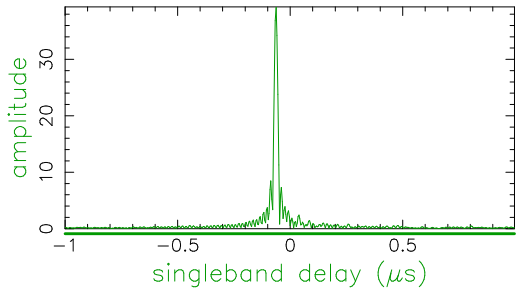
2013+370.3MP56K, No0500, Ab

ALMA - VLBA\_BR, fgroup Q, pol YL



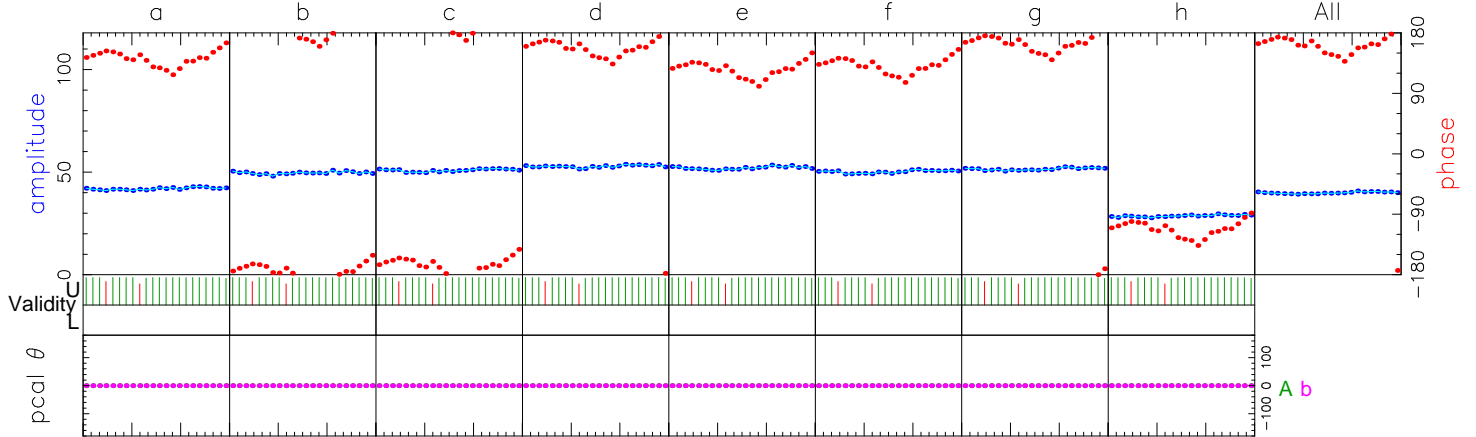
Fringe quality 6

SNR 1428.4  
 Int time 176.661  
 Amp 39.300  
 Phase -287.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.063212  
 MBD -0.000641  
 Fringe rate (Hz)  
 -0.008234  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151740  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	141.7	-175.6	-166.2	158.0	125.4	131.0	164.4	-112.1	Phase	162.2
	41.1	48.6	49.9	51.8	51.1	49.2	50.5	28.1	Ampl.	46.3
	242.5	240.3	240.8	240.8	240.9	240.9	240.9	243.4	Sbd box	240.8
U/L	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
A	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
b	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
b	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-5.97206205511E+03	Apriori delay (usec)	-5.97199891395E+03	Resid mbdelay (usec)	-6.41153E-04	+/-	7.6E-07
Sband delay (usec)	-5.97206212595E+03	Apriori clock (usec)	-2.1120449E+03	Resid sbdelay (usec)	-6.32120E-02	+/-	6.0E-06
Phase delay (usec)	-5.97199890351E+03	Apriori clockrate (us/s)	-5.8727285E-07	Resid phdelay (usec)	1.04471E-05	+/-	5.2E-09
Delay rate (us/s)	-4.57972991652E-01	Apriori rate (us/s)	-4.57972800787E-01	Resid rate (us/s)	-1.90864E-07	+/-	5.0E-11
Total phase (deg)	-341.0	Apriori accel (us/s/s)	-5.68697244773E-05	Resid phase (deg)	-287.8	+/-	0.1

ph/seg (deg)	11.4	RMS	11.4	Theor.	0.2	Amplitude	39.300 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000		
amp/seg (%)	2.0		0.3	Search (1024X32)	38.200	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)	44.0		0.1	Inc. seg. avg.	39.961	Inc. seg. avg.	39.961	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023				
amp/frq (%)	26.2		0.2	Inc. frq. avg.	46.315	Inc. frq. avg.	46.315	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6      b: az 76.2 el 40.6 pa -54.6      u,v (fr/asec) 1617.645 -5714.190      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500/Ab..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500/Ab.Q.33.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

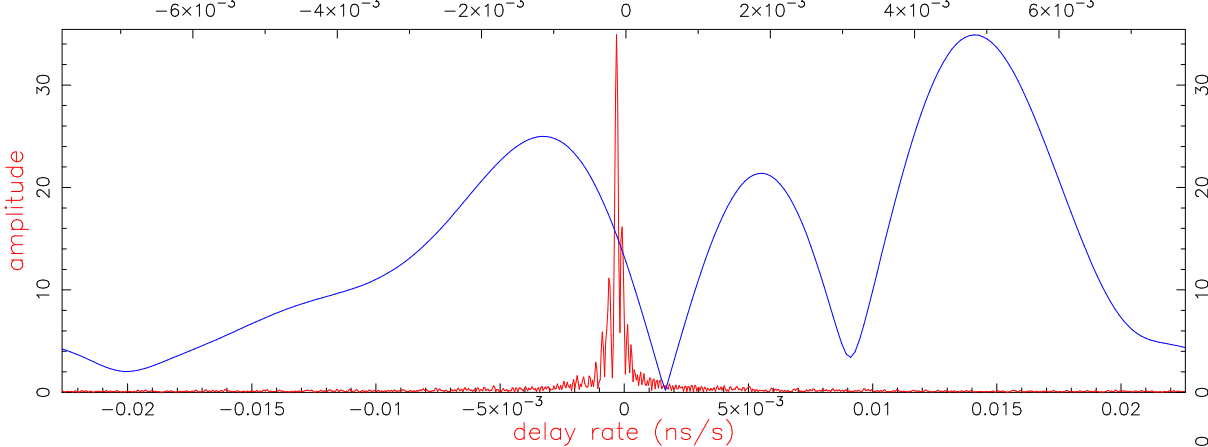
aux01

2013+370.3MP56K, No0500, AB

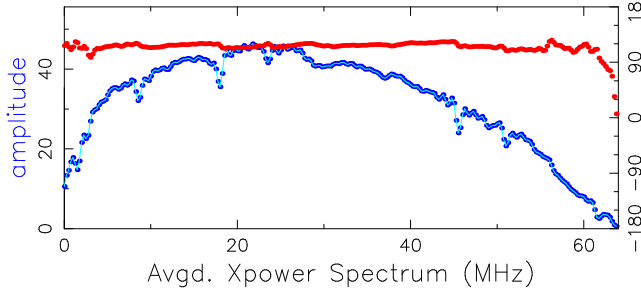
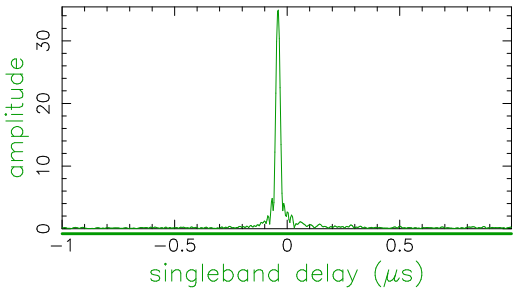
ALMA - EFLSBERG, fgroup Q, pol YL

multiband delay ( $\mu$ s)

Fringe quality 3

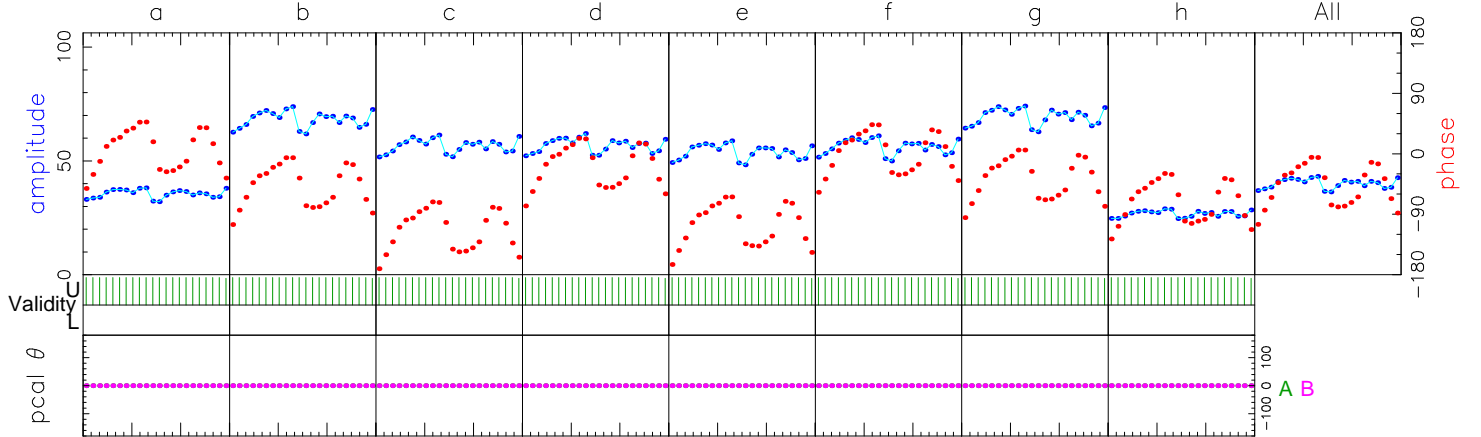


SNR 1299.6  
 Int time 179.963  
 Amp 35.429  
 Phase -294.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.040881  
 MBD 0.004833  
 Fringe rate (Hz)  
 -0.012767  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151741  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	5.7	-47.7	-113.5	-18.6	-105.8	1.2	-36.8	-71.3	Phase	-47.1
	31.0	59.5	49.4	49.5	46.9	48.9	60.4	23.4	Ampl.	46.1
	250.3	246.6	245.5	245.6	245.4	245.7	247.0	252.1	Sbd box	246.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) -7.48101556383E+03 Apriori delay (usec) -7.48097352171E+03 Resid mbdelay (usec) 4.83288E-03 +/- 8.4E-07  
 Sband delay (usec) -7.48101440296E+03 Apriori clock (usec) -2.0720293E+03 Resid sbdelay (usec) -4.08813E-02 +/- 6.6E-06  
 Phase delay (usec) -7.48097352475E+03 Apriori clockrate (us/s) 1.7870709E-07 Resid phdelay (usec) -3.03120E-06 +/- 5.7E-09  
 Delay rate (us/s) 9.79808479546E-01 Apriori rate (us/s) 9.79808775498E-01 Resid rate (us/s) -2.95951E-07 +/- 5.5E-11  
 Total phase (deg) -196.2 Apriori accel (us/s/s) -5.04968903980E-05 Resid phase (deg) -294.6 +/- 0.1

RMS Theor. Amplitude 35.429 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 29.7 0.2 Search (1024X32) 34.165 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 14.3 0.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 49.1 0.1 Inc. seg. avg. 40.081 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 45.5 0.2 Inc. frq. avg. 46.129 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

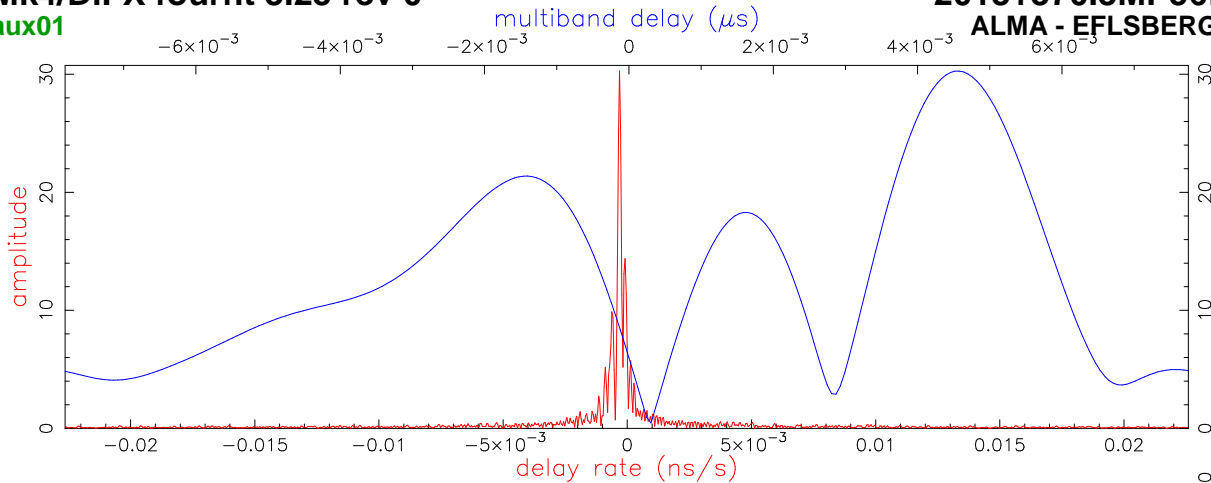
A: az 14.3 el 27.9 pa -163.6 B: az 275.5 el 46.9 pa 52.6 u,v (fr/asec) -3560.330 -5586.561 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AB..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AB.Q.41.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

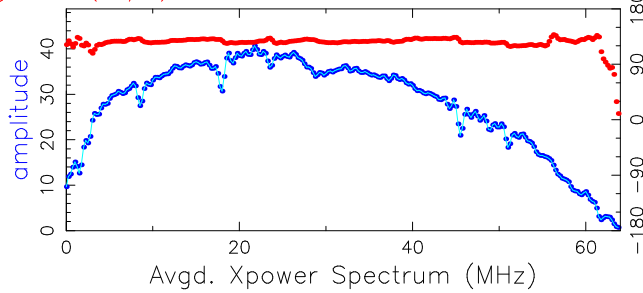
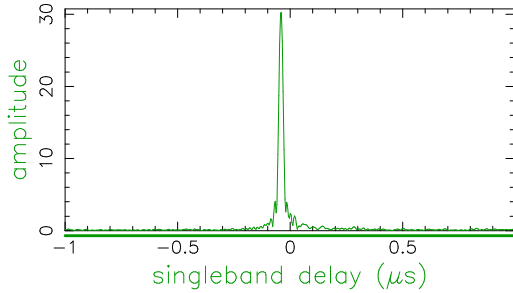
2013+370.3MP56K, No0500, AB

ALMA - EFLSBERG, fgroup Q, pol XL



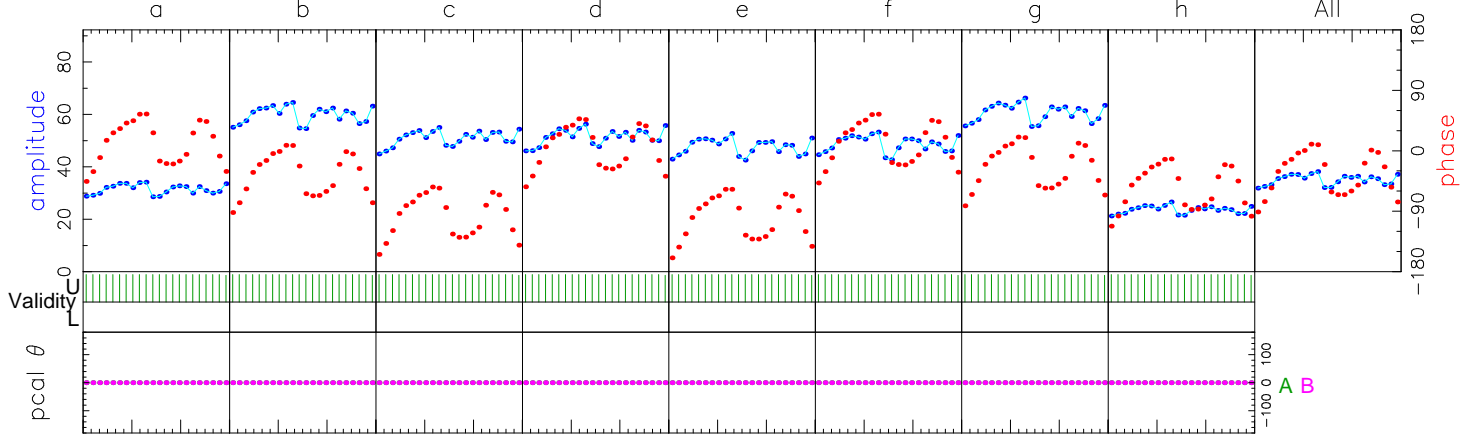
Fringe quality 3

SNR 1128.2  
 Int time 179.963  
 Amp 30.756  
 Phase -281.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.040893  
 MBD 0.004547  
 Fringe rate (Hz)  
 -0.012701  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151733  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	11.8	-35.4	-96.7	5.0	-100.1	11.0	-23.4	-54.6	Phase	-33.6
	27.2	51.7	44.1	44.5	41.1	41.9	52.3	20.4	Ampl.	40.4
	250.2	246.6	245.5	245.6	245.4	245.6	246.9	252.0	Sbd box	246.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
B	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-7.48101584943E+03	Apriori delay (usec)	-7.48097352171E+03	Resid mbdelay (usec)	4.54729E-03	+/-	9.6E-07
Sband delay (usec)	-7.48101441471E+03	Apriori clock (usec)	-2.0720293E+03	Resid sbdelay (usec)	-4.08930E-02	+/-	7.6E-06
Phase delay (usec)	-7.48097352388E+03	Apriori clockrate (us/s)	1.7870709E-07	Resid phdelay (usec)	-2.16443E-06	+/-	6.5E-09
Delay rate (us/s)	9.79808481080E-01	Apriori rate (us/s)	9.79808775498E-01	Resid rate (us/s)	-2.94418E-07	+/-	6.3E-11
Total phase (deg)	-182.7	Apriori accel (us/s/s)	-5.04968903980E-05	Resid phase (deg)	-281.1	+/-	0.1

ph/seg (deg)	RMS 30.6	Theor. 0.2	Amplitude Search (1024X32)	30.756 +/- 0.027	29.097	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	15.4	0.4	Interp.	0.000	0.000E+00	0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	49.1	0.1	Inc. seg. avg.	35.102	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.023	0.023
amp/frq (%)	46.3	0.3	Inc. frq. avg.	40.391	Data rate(Mb/s): 2048			ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6      B: az 275.5 el 46.9 pa 52.6      u,v (fr/asec) -3560.330 -5586.561      simultaneous interpolator

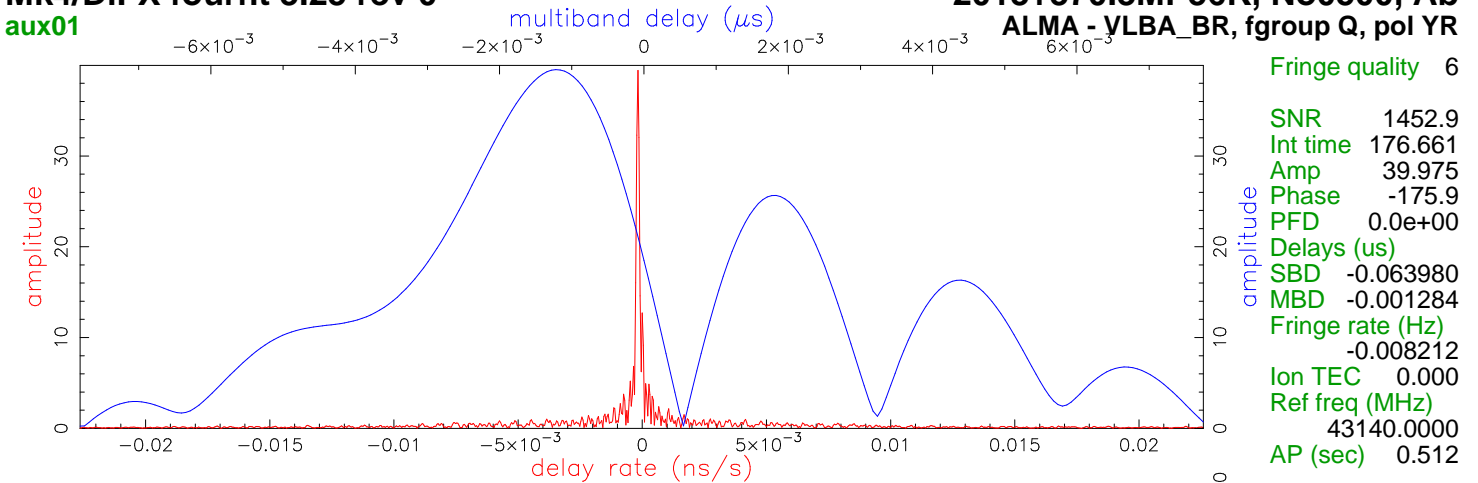
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//AB..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//AB.Q.5.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

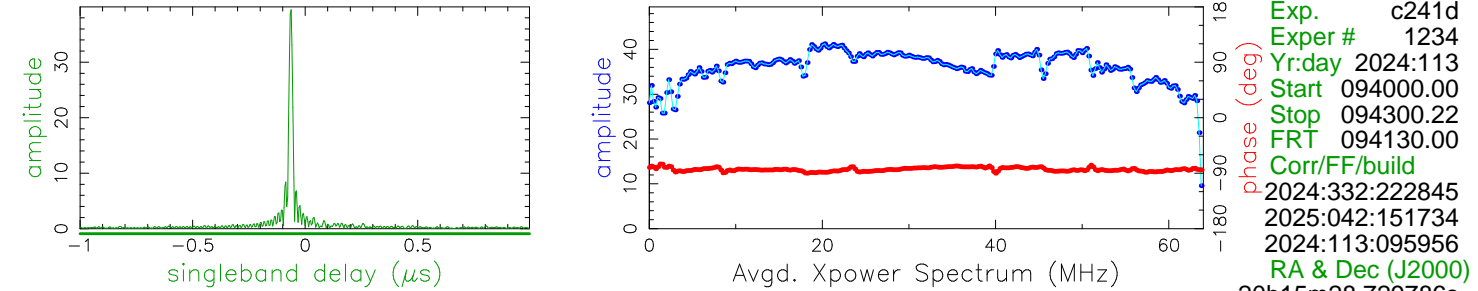
2013+370.3MP56K, No0500, Ab

ALMA - VLBA\_BR, fgroup Q, pol YR



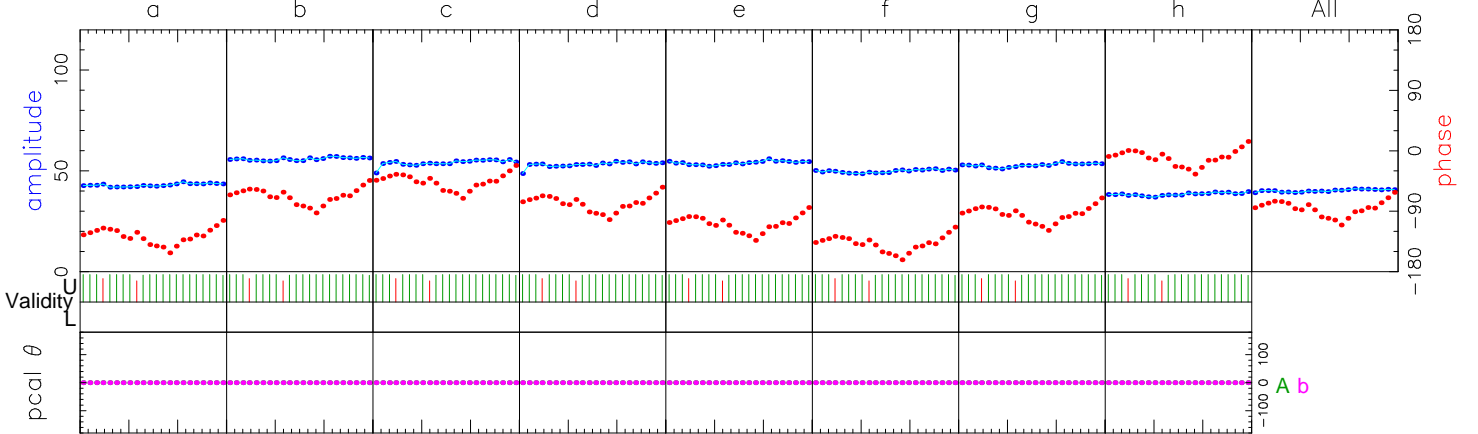
Fringe quality 6

SNR 1452.9  
 Int time 176.661  
 Amp 39.975  
 Phase -175.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.063980  
 MBD -0.001284  
 Fringe rate (Hz)  
 -0.008212  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151734  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-127.1	-67.6	-46.0	-78.3	-108.6	-138.2	-94.3	-10.3	Phase	-85.9
	42.1	54.8	53.0	52.2	52.9	48.9	51.8	37.7	Ampl.	49.2
	242.5	240.6	240.6	240.4	240.7	240.2	240.9	242.8	Sbd box	240.6
U/L	348/0	348/0	348/0	348/0	348/0	348/0	348/0	348/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
b	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD) -5.97206269823E+03 Apriori delay (usec) -5.97199891395E+03 Resid mbdelay (usec) -1.28428E-03 +/- 7.5E-07  
 Sband delay (usec) -5.97206289445E+03 Apriori clock (usec) -2.1120449E+03 Resid sbdelay (usec) -6.39805E-02 +/- 5.9E-06  
 Phase delay (usec) -5.97199891948E+03 Apriori clockrate (us/s) -5.8727285E-07 Resid phdelay (usec) -5.52837E-06 +/- 5.1E-09  
 Delay rate (us/s) -4.57972991154E-01 Apriori rate (us/s) -4.57972800787E-01 Resid rate (us/s) -1.90366E-07 +/- 4.9E-11  
 Total phase (deg) -229.1 Apriori accel (us/s/s) -5.68697244773E-05 Resid phase (deg) -175.9 +/- 0.1

RMS Theor. Amplitude 39.975 +/- 0.028 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 11.4 0.2 Search (1024X32) 38.046 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 1.6 0.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 46.0 0.1 Inc. seg. avg. 40.223 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 27.0 0.2 Inc. frq. avg. 49.174 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

A: az 14.3 el 27.9 pa -163.6 b: az 76.2 el 40.6 pa -54.6 u,v (fr/asec) 1617.645 -5714.190 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/Ab..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/Ab.Q.8.3MP56K

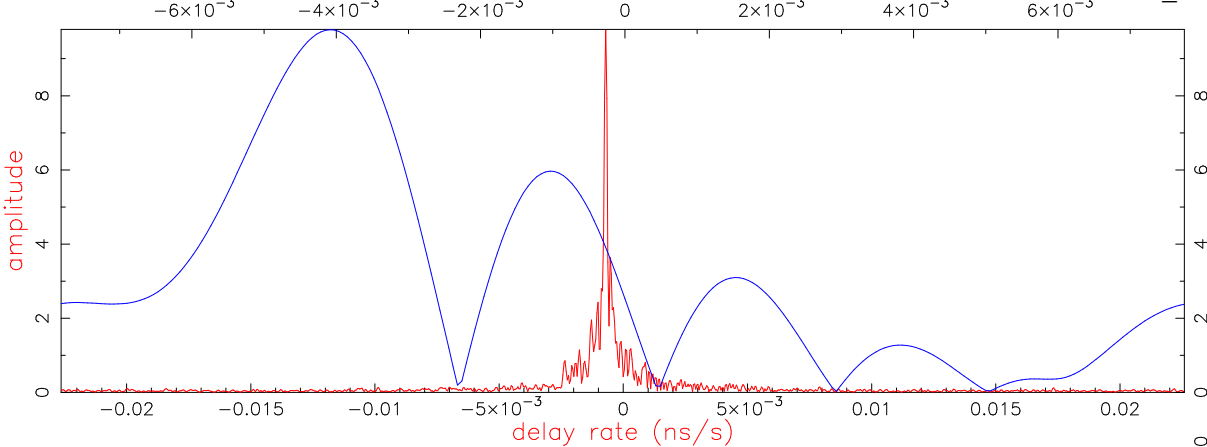
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ac

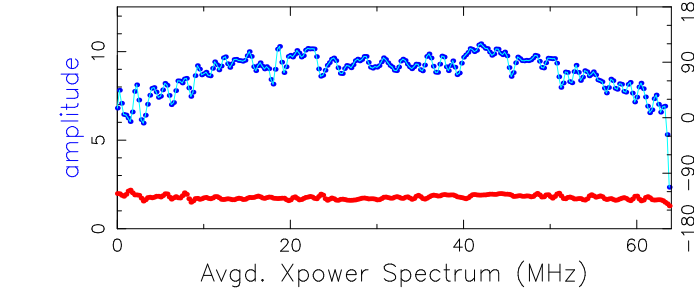
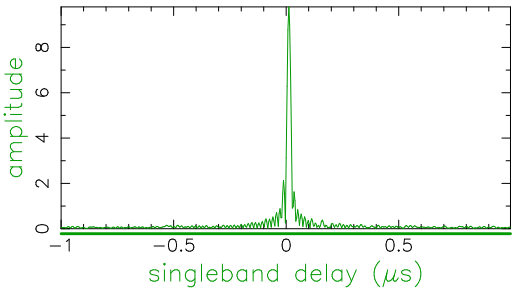
ALMA - VLBA\_SC, fgroup Q, pol XL

multiband delay ( $\mu$ s)



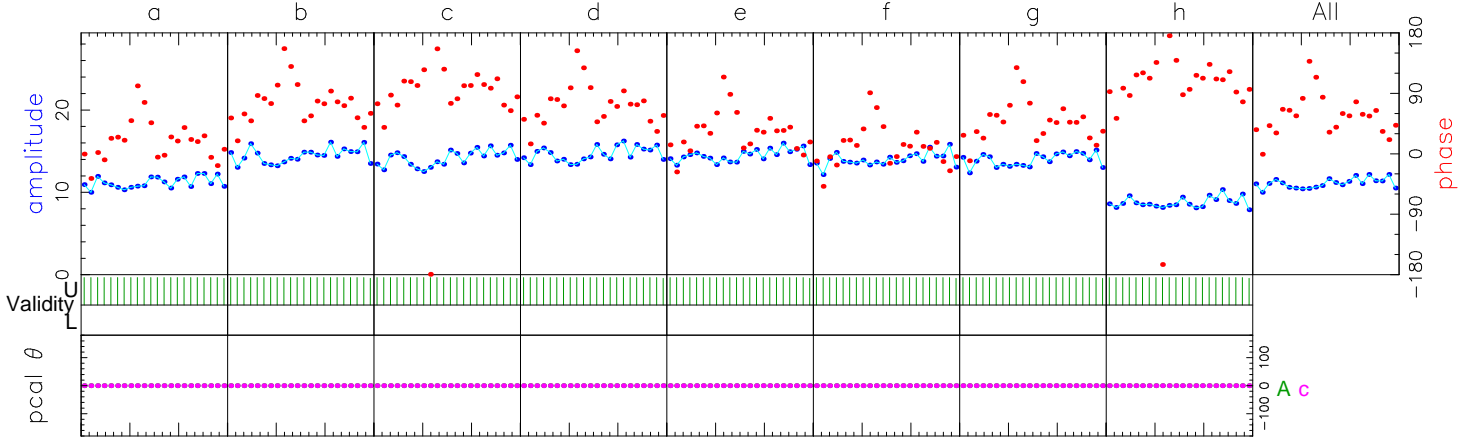
Fringe quality 4

SNR 359.0  
 Int time 179.980  
 Amp 9.790  
 Phase 258.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.011984  
 MBD -0.004068  
 Fringe rate (Hz)  
 -0.030520  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151738  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0	APs used	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.17477197763E+04	Apriori delay (usec)	-1.17477313337E+04	Resid mbdelay (usec)	-4.06761E-03	+/-	3.0E-06
Sband delay (usec)	-1.17477193497E+04	Apriori clock (usec)	-2.1111511E+03	Resid sbdelay (usec)	1.19840E-02	+/-	2.4E-05
Phase delay (usec)	-1.17477313301E+04	Apriori clockrate (us/s)	3.8243811E-07	Resid phdelay (usec)	3.58485E-06	+/-	2.1E-08
Delay rate (us/s)	5.28850264086E-02	Apriori rate (us/s)	5.28857338760E-02	Resid rate (us/s)	-7.07467E-07	+/-	2.0E-10
Total phase (deg)	-6.6	Apriori accel (us/s/s)	3.84623856768E-06	Resid phase (deg)	258.2	+/-	0.3

ph/seg (deg)	29.8	Theor.	0.7	Amplitude	9.790 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	14.7	Search (1024X32)	9.672	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.0	Inc. seg. avg.	11.109	Inc. frq. avg.	11.620	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	25.8	Inc. frq. avg.	11.620	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)	-0.023 0.023
									ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6      c: az 27.3 el 67.5 pa -147.2      u,v (fr/asec) -195.100 -2334.889      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//Ac..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//Ac.Q.20.3MP56K

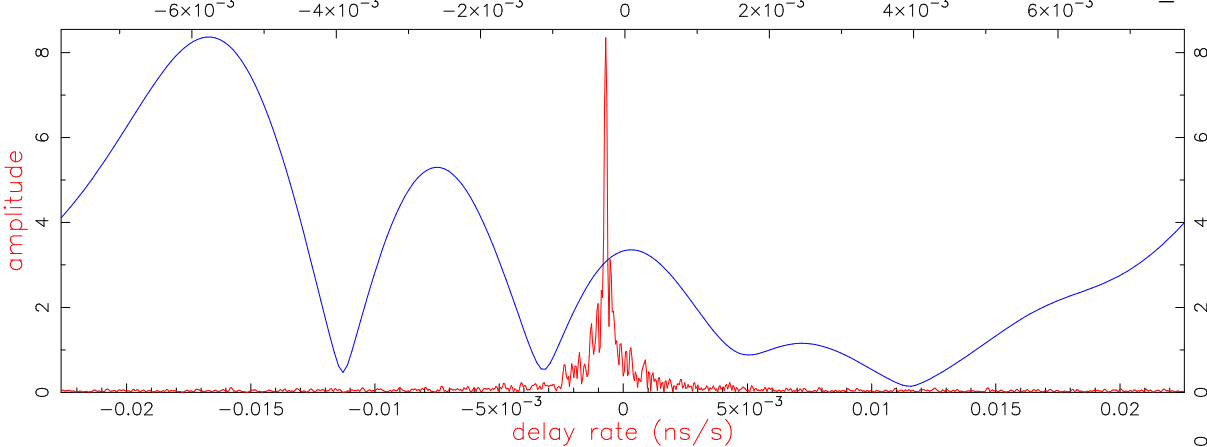
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ac

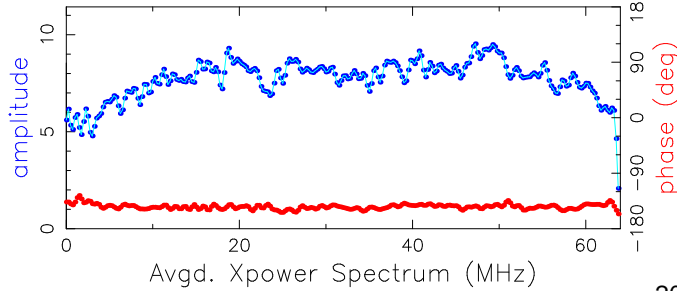
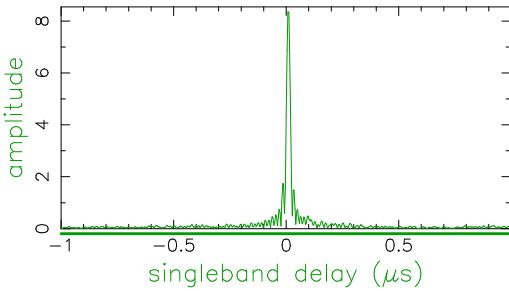
ALMA - VLBA\_SC, fgroup Q, pol YR

multiband delay ( $\mu$ s)



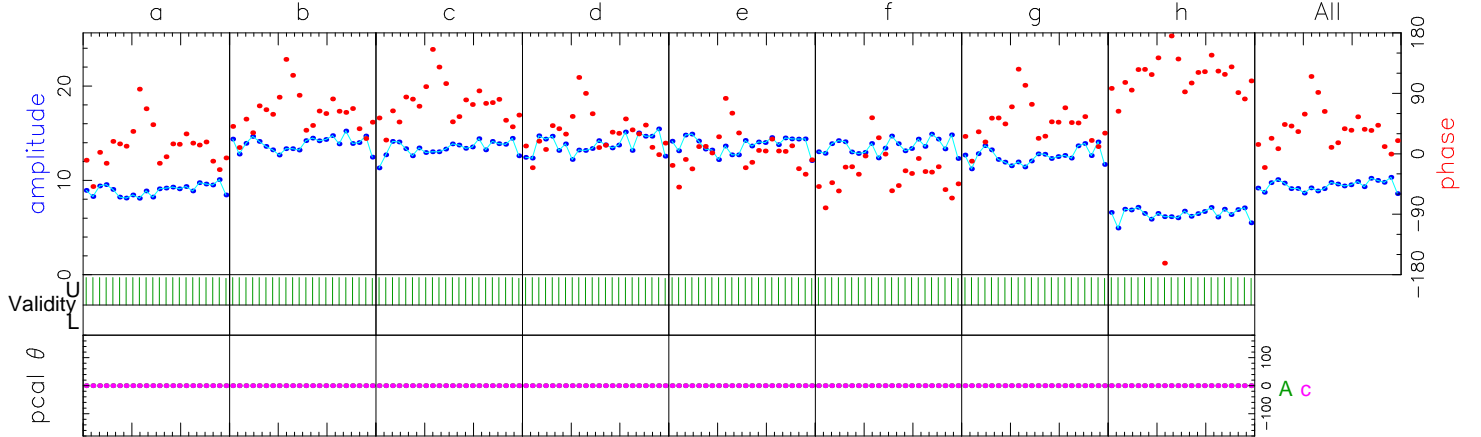
Fringe quality 4

SNR 313.4  
 Int time 179.980  
 Amp 8.547  
 Phase 235.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.009728  
 MBD -0.005691  
 Fringe rate (Hz)  
 -0.030580  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151740  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	10.1	59.4	73.3	30.9	2.1	-29.7	44.3	118.5	Phase	33.4
	7.9	12.3	11.8	12.2	12.2	12.0	11.1	5.7	Ampl.	10.7
	261.1	259.4	259.3	259.6	259.2	259.6	260.1	261.6	Sbd box	259.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-1.17477214000E+04	Apriori delay (usec)	-1.17477313337E+04	Resid mbdelay (usec)	-5.69127E-03	+/-	3.5E-06
Sband delay (usec)	-1.17477216059E+04	Apriori clock (usec)	-2.1111511E+03	Resid sbdelay (usec)	9.72775E-03	+/-	2.7E-05
Phase delay (usec)	-1.17477313315E+04	Apriori clockrate (us/s)	3.8243811E-07	Resid phdelay (usec)	2.15351E-06	+/-	2.4E-08
Delay rate (us/s)	5.28850250306E-02	Apriori rate (us/s)	5.28857338760E-02	Resid rate (us/s)	-7.08845E-07	+/-	2.3E-10
Total phase (deg)	-28.8	Apriori accel (us/s/s)	3.84623856768E-06	Resid phase (deg)	235.9	+/-	0.4

ph/seg (deg)	29.4	0.9	Search (1024X32)	8.256	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	12.2	1.5	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)	50.2	0.5	Inc. seg. avg.	9.467	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	36.7	0.9	Inc. frq. avg.	10.657	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6      c: az 27.3 el 67.5 pa -147.2      u,v (fr/asec) -195.100 -2334.889      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//Ac..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//Ac.Q.32.3MP56K

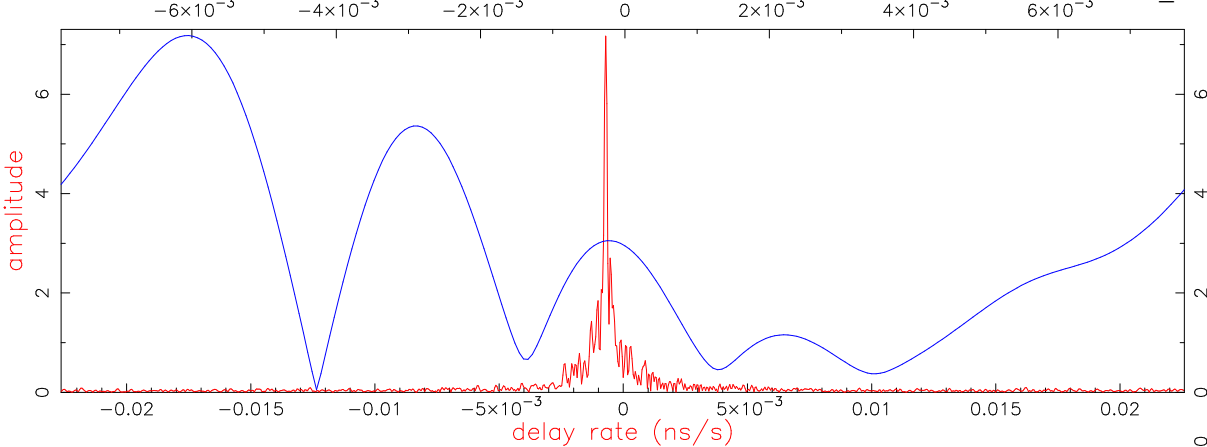
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ac

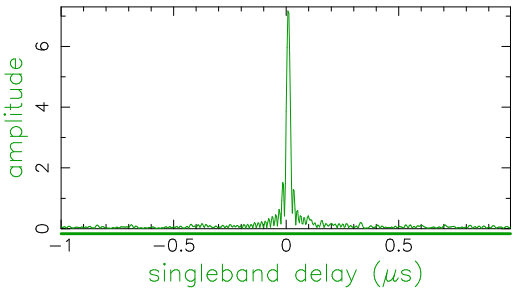
ALMA - VLBA\_SC, fgroup Q, pol XR

multiband delay ( $\mu$ s)

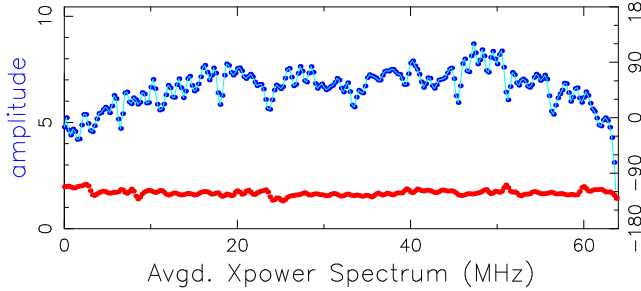


Fringe quality 3

SNR 267.9  
 Int time 179.980  
 Amp 7.306  
 Phase 259.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.009532  
 MBD -0.005994  
 Fringe rate (Hz)  
 -0.030542  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512

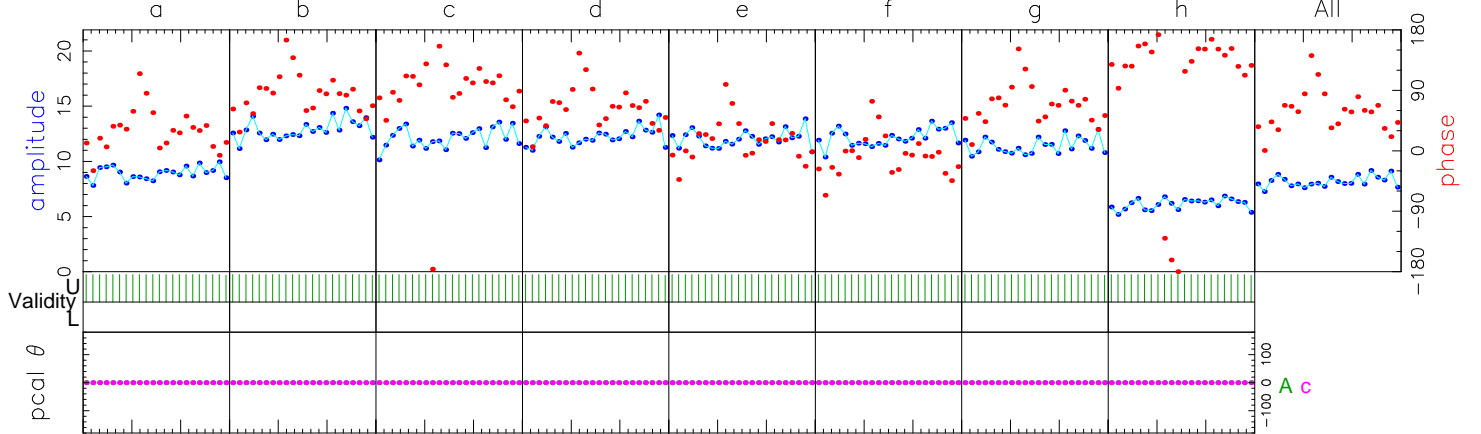


singleband delay ( $\mu$ s)



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151743  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0	APs used	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
c	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-1.17477217025E+04	Apriori delay (usec)	-1.17477313337E+04	Resid mbdelay (usec)	-5.99377E-03	+/-	4.1E-06
Sband delay (usec)	-1.17477218019E+04	Apriori clock (usec)	-2.1111511E+03	Resid sbdelay (usec)	9.53175E-03	+/-	3.2E-05
Phase delay (usec)	-1.17477313300E+04	Apriori clockrate (us/s)	3.8243811E-07	Resid phdelay (usec)	3.67284E-06	+/-	2.8E-08
Delay rate (us/s)	5.28850259135E-02	Apriori rate (us/s)	5.28857338760E-02	Resid rate (us/s)	-7.07962E-07	+/-	2.6E-10
Total phase (deg)	-5.2	Apriori accel (us/s/s)	3.84623856768E-06	Resid phase (deg)	259.5	+/-	0.4

ph/seg (deg)	RMS 30.3	Theor. 1.0	Amplitude Search (1024X32)	7.088	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	13.8	1.8	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)	54.7	0.6	Inc. seg. avg.	8.188	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023	0.023
amp/frq (%)	41.4	1.1	Inc. frq. avg.	9.669	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6      c: az 27.3 el 67.5 pa -147.2      u,v (fr/asec) -195.100 -2334.889      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//Ac..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//Ac.Q.49.3MP56K

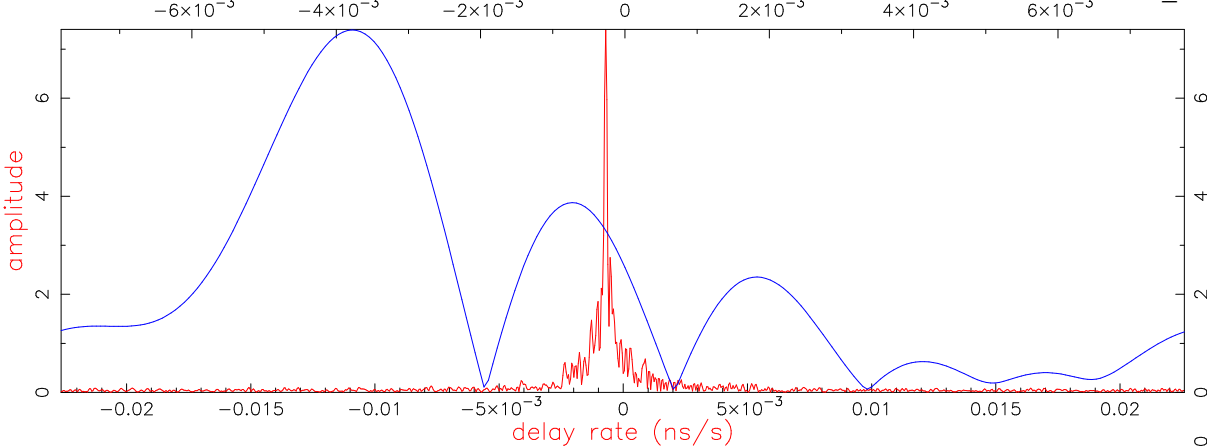
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ac

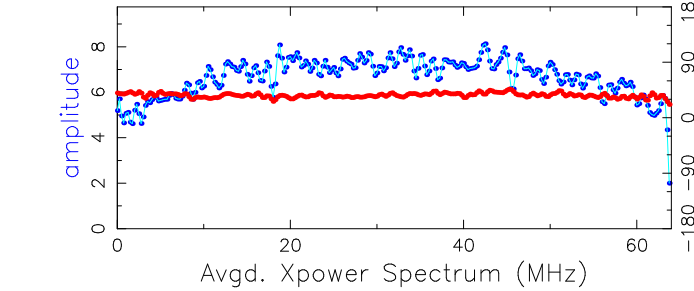
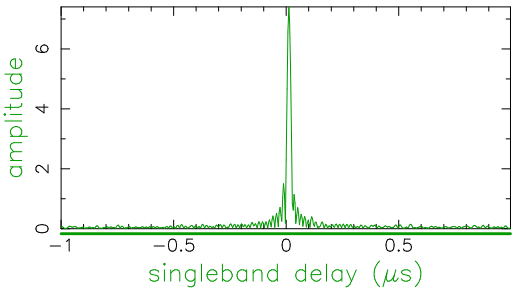
ALMA - VLBA\_SC, fgroup Q, pol YL

multiband delay ( $\mu$ s)



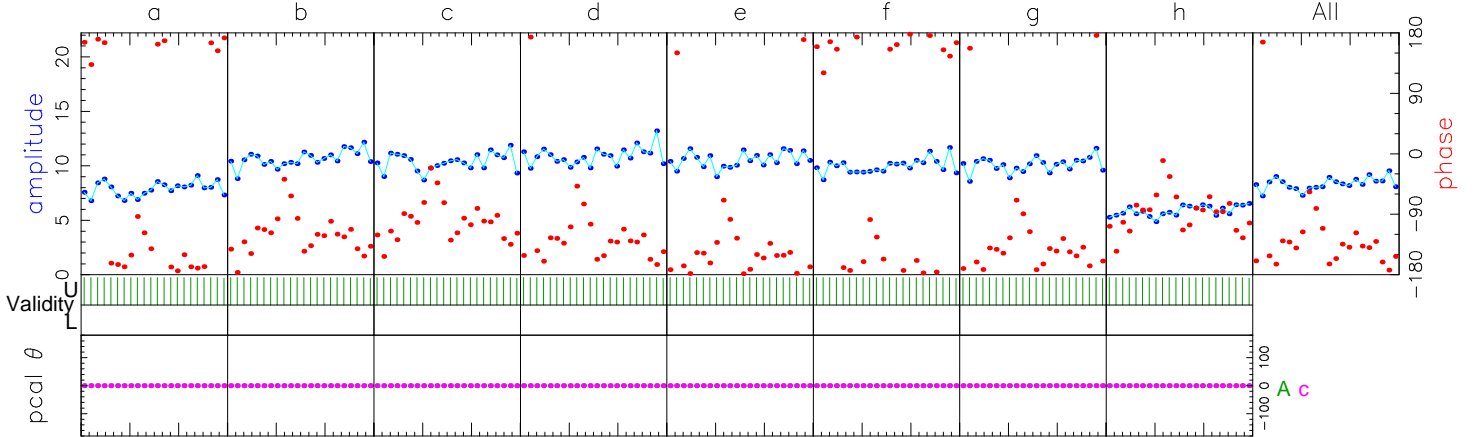
Fringe quality 4

SNR 271.5  
 Int time 179.980  
 Amp 7.404  
 Phase 62.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.012184  
 MBD -0.003757  
 Fringe rate (Hz)  
 -0.030566  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151745  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-173.5	-121.5	-102.0	-133.3	-155.5	178.0	-148.4	-88.7	Phase	-139.8
	7.0	9.4	9.1	9.6	9.3	8.8	8.9	5.2	Ampl.	8.4
	261.7	259.9	259.8	260.1	260.0	260.1	260.0	262.0	Sbd box	260.1
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
c	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:c	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
c	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
c	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.17477194659E+04	Apriori delay (usec)	-1.17477313337E+04	Resid mbdelay (usec)	-3.75724E-03	+/-	4.0E-06
Sband delay (usec)	-1.17477191494E+04	Apriori clock (usec)	-2.1111511E+03	Resid sbdelay (usec)	1.21843E-02	+/-	3.2E-05
Phase delay (usec)	-1.17477313427E+04	Apriori clockrate (us/s)	3.8243811E-07	Resid phdelay (usec)	-9.00242E-06	+/-	2.7E-08
Delay rate (us/s)	5.28850253560E-02	Apriori rate (us/s)	5.28857338760E-02	Resid rate (us/s)	-7.08520E-07	+/-	2.6E-10
Total phase (deg)	158.0	Apriori accel (us/s/s)	3.84623856768E-06	Resid phase (deg)	62.7	+/-	0.4

ph/seg (deg)	29.5	1.0	Search (1024X32)	7.252	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	14.9	1.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	35.7	0.6	Inc. seg. avg.	8.366	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	23.9	1.0	Inc. frq. avg.	8.429	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6      c: az 27.3 el 67.5 pa -147.2      u,v (fr/asec) -195.100 -2334.889      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//Ac..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//Ac.Q.62.3MP56K



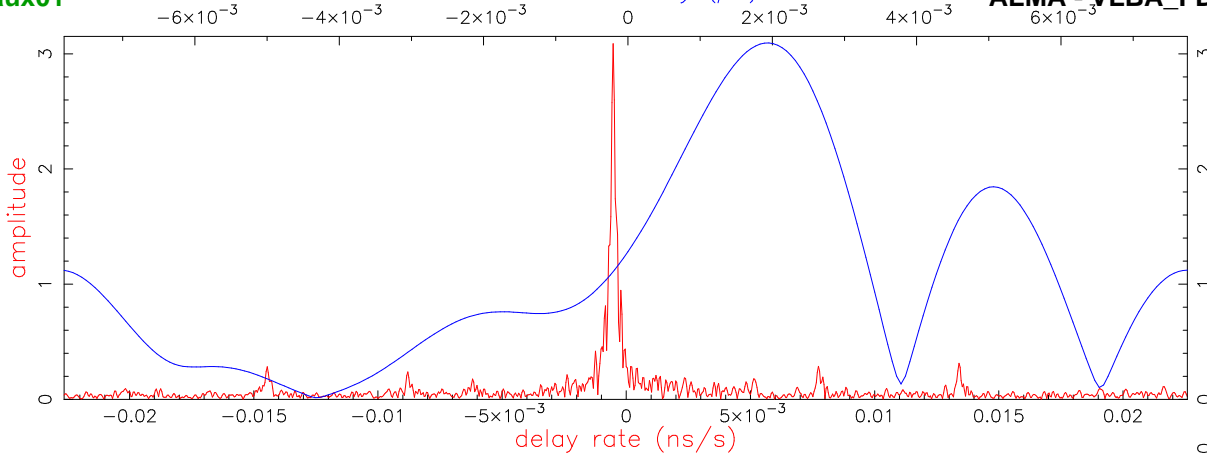
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Af

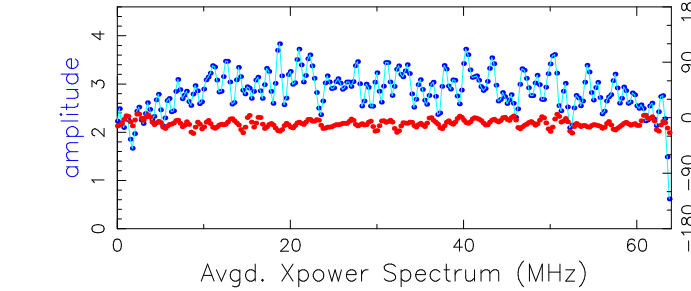
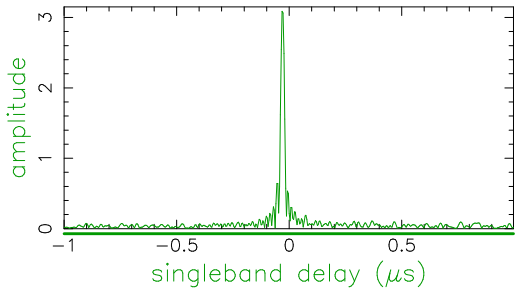
ALMA - VLBA\_FD, fgroup Q, pol YR

multiband delay ( $\mu$ s)



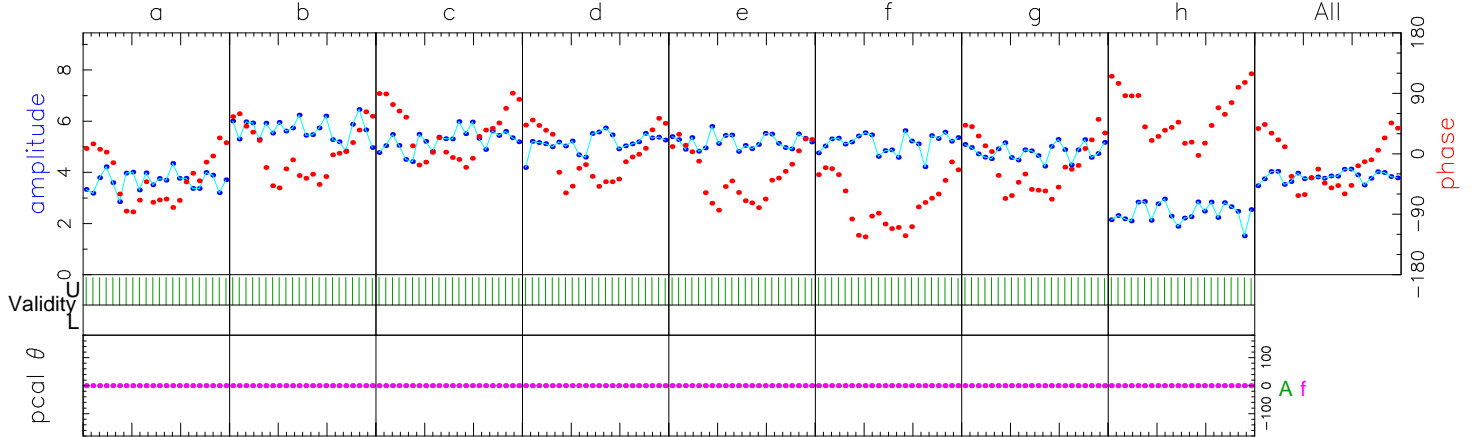
Fringe quality 3

SNR 115.6  
 Int time 179.973  
 Amp 3.151  
 Phase -57.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.029459  
 MBD 0.002017  
 Fringe rate (Hz)  
 -0.022947  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151735  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-36.1	1.3	31.5	-3.3	-31.3	-72.8	-15.9	57.1		-12.1
	3.0	4.5	4.2	4.1	4.2	4.1	3.8	2.0	Ampl.	3.7
	250.9	249.3	249.7	249.4	249.3	249.2	249.9	251.7	Sbd box	249.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
f	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-7.64503297369E+03	Apriori delay (usec)	-7.64500374042E+03	Resid mbdelay (usec)	2.01673E-03	+/-	9.4E-06
Sband delay (usec)	-7.64503319967E+03	Apriori clock (usec)	-2.1074802E+03	Resid sbdelay (usec)	-2.94592E-02	+/-	7.5E-05
Phase delay (usec)	-7.64500374120E+03	Apriori clockrate (us/s)	-6.1051858E-08	Resid phdelay (usec)	-7.79126E-07	+/-	6.4E-08
Delay rate (us/s)	-5.30326997461E-01	Apriori rate (us/s)	-5.30326465547E-01	Resid rate (us/s)	-5.31914E-07	+/-	6.1E-10
Total phase (deg)	-187.3	Apriori accel (us/s/s)	-3.18996968766E-05	Resid phase (deg)	-57.1	+/-	1.0

ph/seg (deg)	36.7	2.3	Search (1024X32)	3.077	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	22.5	4.1	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)	43.9	1.4	Inc. seg. avg.	3.833	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	31.4	2.4	Inc. frq. avg.	3.738	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6 f: az 66.6 el 46.8 pa -82.9 u,v (fr/asec) 1890.264 -4138.998 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Af..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Af.Q.10.3MP56K

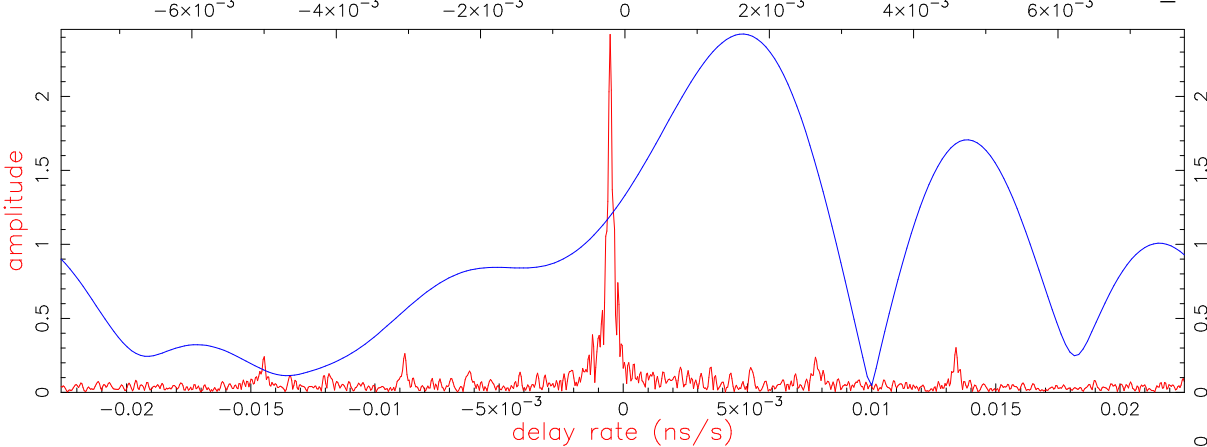
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Af

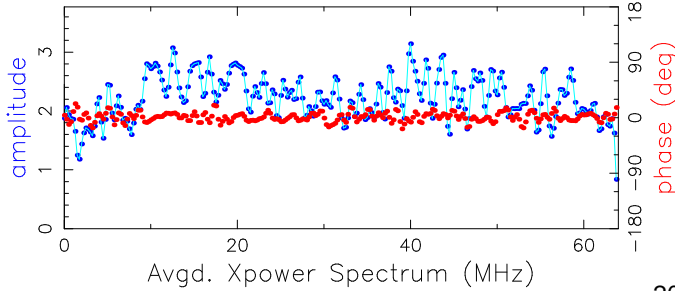
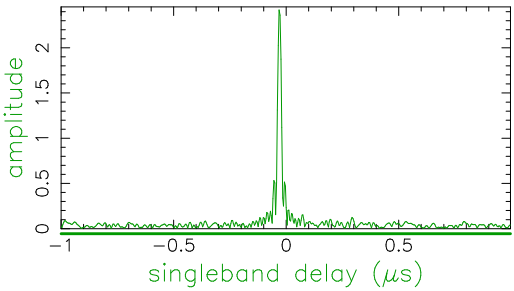
ALMA - VLBA\_FD, fgroup Q, pol XR

multiband delay ( $\mu$ s)



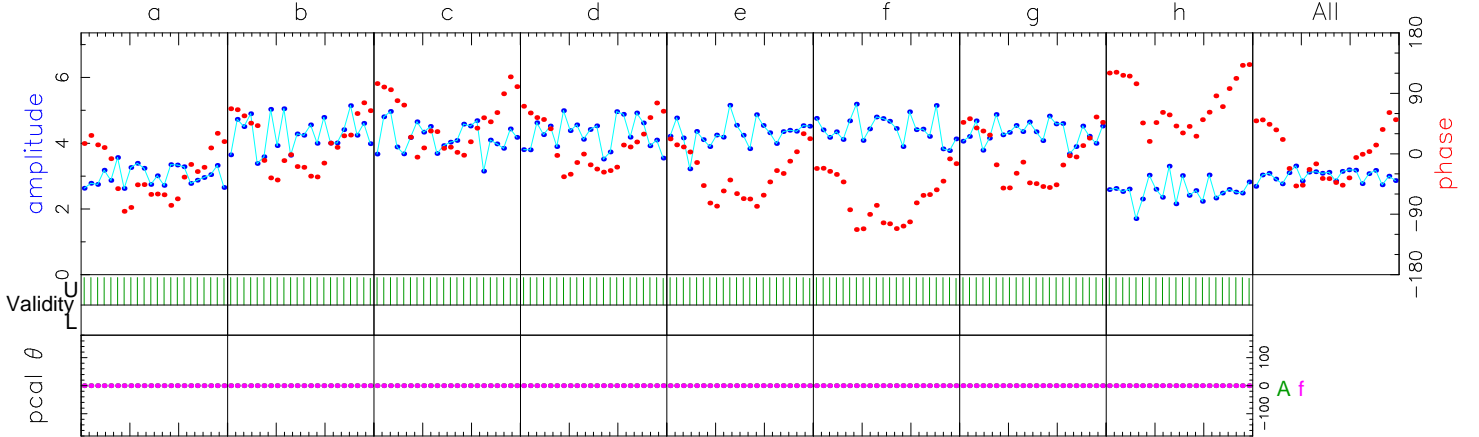
Fringe quality 3

SNR 90.0  
 Int time 179.973  
 Amp 2.453  
 Phase -46.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.029770  
 MBD 0.001693  
 Fringe rate (Hz)  
 -0.022944  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151737  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-29.5	14.9	48.2	13.8	-29.8	-67.9	-5.3	75.6	Phase	-1.5
	2.4	3.4	3.3	3.5	3.5	3.7	3.4	2.1	Ampl.	3.2
	250.7	249.2	249.6	249.4	249.3	249.2	249.8	251.5	Sbd box	249.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
f	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-7.64503329722E+03		Apriori delay (usec)		-7.64500374042E+03		Resid mbdelay (usec)		1.69320E-03	+/- 1.2E-05
Sband delay (usec)	-7.64503351092E+03		Apriori clock (usec)		-2.1074802E+03		Resid sbdelay (usec)		-2.97705E-02	+/- 9.6E-05
Phase delay (usec)	-7.64500374052E+03		Apriori clockrate (us/s)		-6.1051858E-08		Resid phdelay (usec)		-9.95603E-08	+/- 8.2E-08
Delay rate (us/s)	-5.30326997391E-01		Apriori rate (us/s)		-5.30326465547E-01		Resid rate (us/s)		-5.31843E-07	+/- 7.9E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.18996968766E-05		Resid phase (deg)		-46.5	+/- 1.3

ph/seg (deg) 37.1 3.0 Search (1024X32) 2.376 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 23.7 5.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 49.9 1.8 Inc. seg. avg. 3.006 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 36.4 3.1 Inc. frq. avg. 3.157 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 A: az 14.3 el 27.9 pa -163.6 f: az 66.6 el 46.8 pa -82.9 u,v (fr/asec) 1890.264 -4138.998 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Af..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Af.Q.16.3MP56K

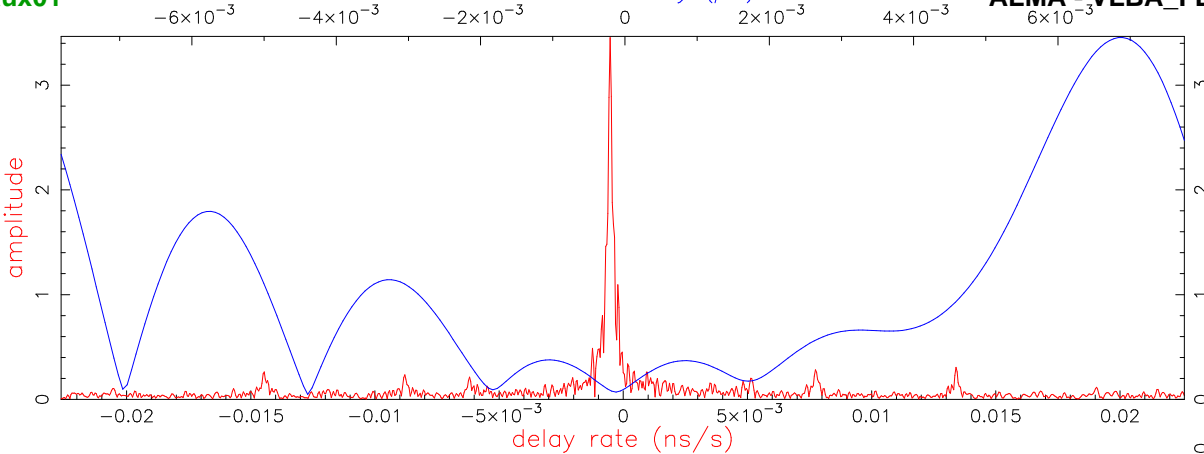
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Af

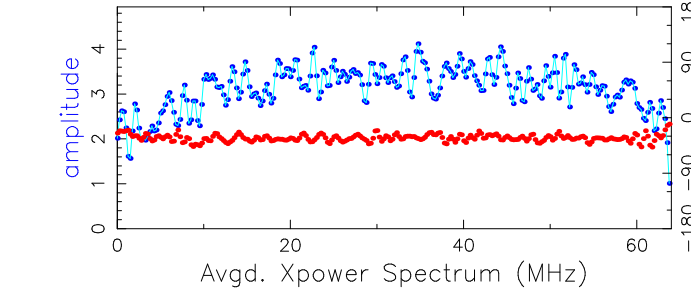
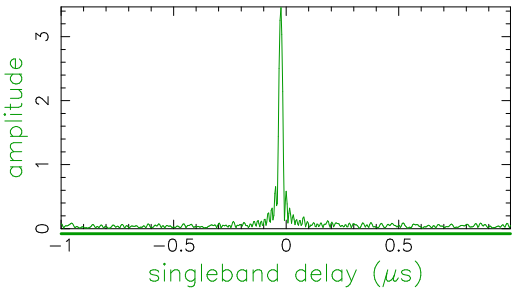
ALMA - VLBA\_FD, fgroup Q, pol YL

multiband delay ( $\mu$ s)



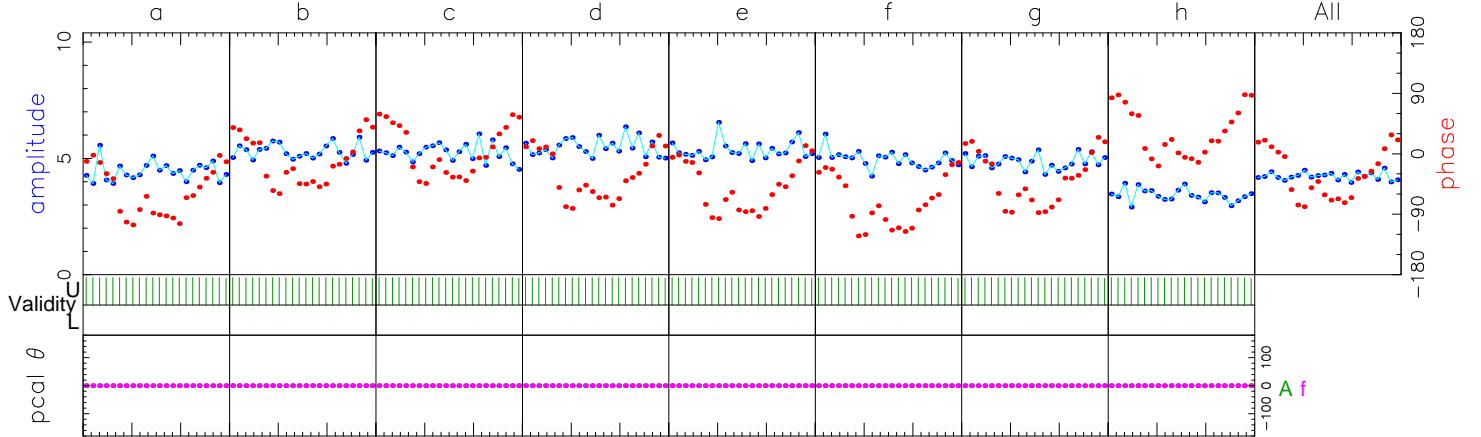
Fringe quality 3

SNR 127.1  
Int time 179.973  
Amp 3.466  
Phase -75.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.024156  
MBD 0.006836  
Fringe rate (Hz)  
-0.022942  
Ion TEC 0.000  
Ref freq (MHz)  
43140.0000  
AP (sec) 0.512



Exp. c241d  
Exper # 1234  
Yr:day 2024:113  
Start 094000.00  
Stop 094300.22  
FRT 094130.00  
Corr/FF/build  
2024:332:222845  
2025:042:151739  
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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-58.0	-10.3	4.2	-31.7	-49.1	-70.3	-36.8	31.4	Phase	-30.0
	3.7	4.4	4.2	4.5	4.4	4.0	3.8	2.8	Ampl.	4.0
	252.4	250.3	250.5	250.6	250.7	250.7	250.7	252.5	Sbd box	250.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
f	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-7.64502815413E+03	Apriori delay (usec)	-7.64500374042E+03	Resid mbdelay (usec)	6.83629E-03	+/-	8.5E-06
Sband delay (usec)	-7.64502789642E+03	Apriori clock (usec)	-2.1074802E+03	Resid sbdelay (usec)	-2.41560E-02	+/-	6.8E-05
Phase delay (usec)	-7.64500374235E+03	Apriori clockrate (us/s)	-6.1051858E-08	Resid phdelay (usec)	-1.93120E-06	+/-	5.8E-08
Delay rate (us/s)	-5.30326997340E-01	Apriori rate (us/s)	-5.30326465547E-01	Resid rate (us/s)	-5.31792E-07	+/-	5.6E-10
Total phase (deg)	-205.2	Apriori accel (us/s/s)	-3.18996968766E-05	Resid phase (deg)	-75.0	+/-	0.9

ph/seg (deg)	35.8	2.1	Search (1024X32)	3.430	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	22.8	3.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	36.8	1.3	Inc. seg. avg.	4.238	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	20.8	2.2	Inc. frq. avg.	3.964	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6 f: az 66.6 el 46.8 pa -82.9 u,v (fr/asec) 1890.264 -4138.998 simultaneous interpolator

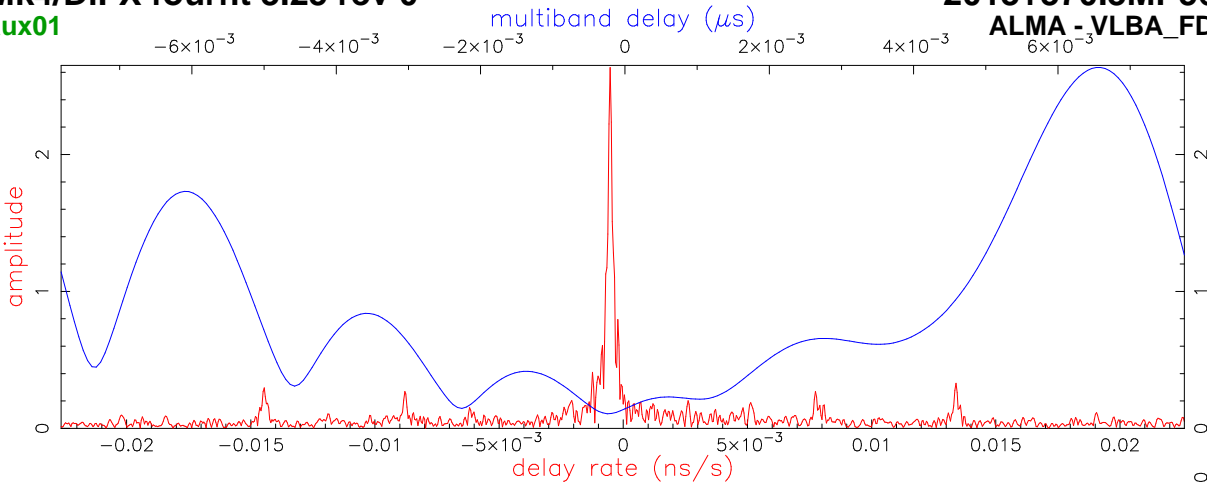
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Af..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Af.Q.26.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

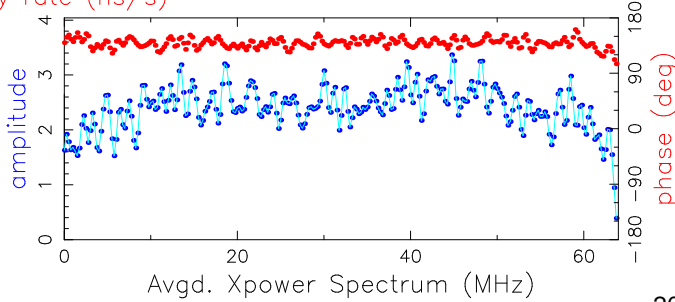
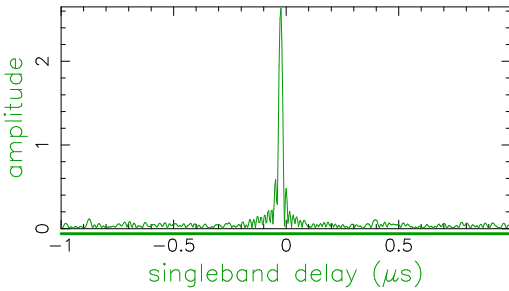
2013+370.3MP56K, No0500, Af

ALMA - VLBA\_FD, fgroup Q, pol XL



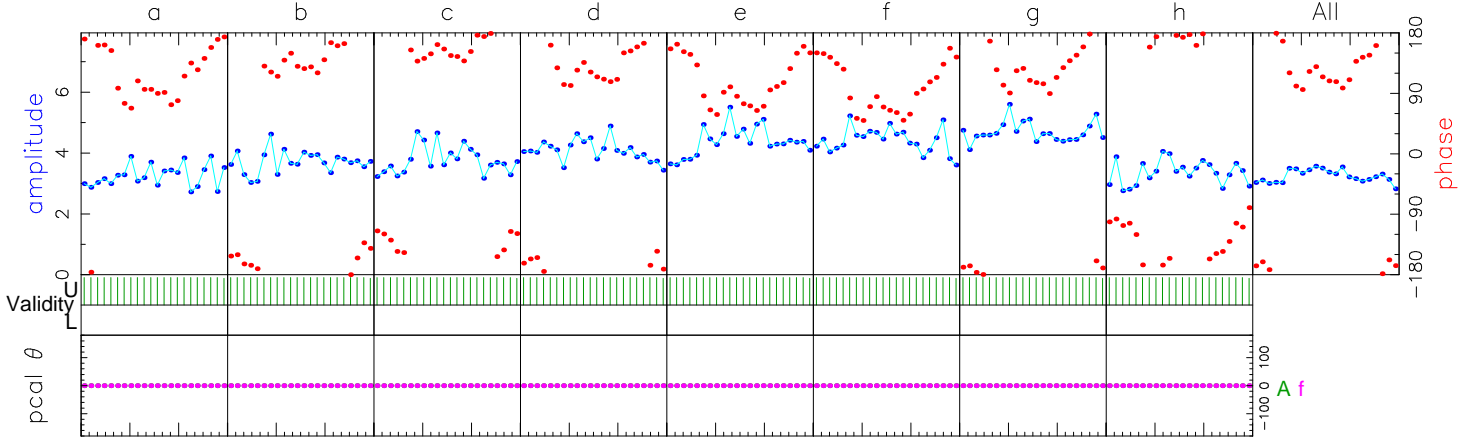
Fringe quality 3

SNR 97.2  
 Int time 179.973  
 Amp 2.651  
 Phase -262.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.024416  
 MBD 0.006519  
 Fringe rate (Hz)  
 -0.022895  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151733  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
f	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-7.64502847172E+03	Apriori delay (usec)	-7.64500374042E+03	Resid mbdelay (usec)	6.51870E-03	+/-	1.1E-05
Sband delay (usec)	-7.64502815592E+03	Apriori clock (usec)	-2.1074802E+03	Resid sbdelay (usec)	-2.44155E-02	+/-	8.9E-05
Phase delay (usec)	-7.64500373122E+03	Apriori clockrate (us/s)	-6.1051858E-08	Resid phdelay (usec)	9.20524E-06	+/-	7.6E-08
Delay rate (us/s)	-5.30326996262E-01	Apriori rate (us/s)	-5.30326465547E-01	Resid rate (us/s)	-5.30714E-07	+/-	7.3E-10
Total phase (deg)	-32.3	Apriori accel (us/s/s)	-3.18996968766E-05	Resid phase (deg)	-262.0	+/-	1.2

ph/seg (deg)	36.3	RMS	2.8	Theor.	2.570	Amplitude	2.651 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	23.7	Search (1024X32)	0.000	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)	41.8	Inc. seg. avg.	3.242	Inc. frq. avg.	3.200	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	nlags:	256	t_cohere	infinite	ion window (TEC)	0.00	0.00
amp/frq (%)	25.9	Inc. frq. avg.	3.200			Data rate (Mb/s):	2048							

A: az 14.3 el 27.9 pa -163.6 f: az 66.6 el 46.8 pa -82.9 u,v (fr/asec) 1890.264 -4138.998 simultaneous interpolator

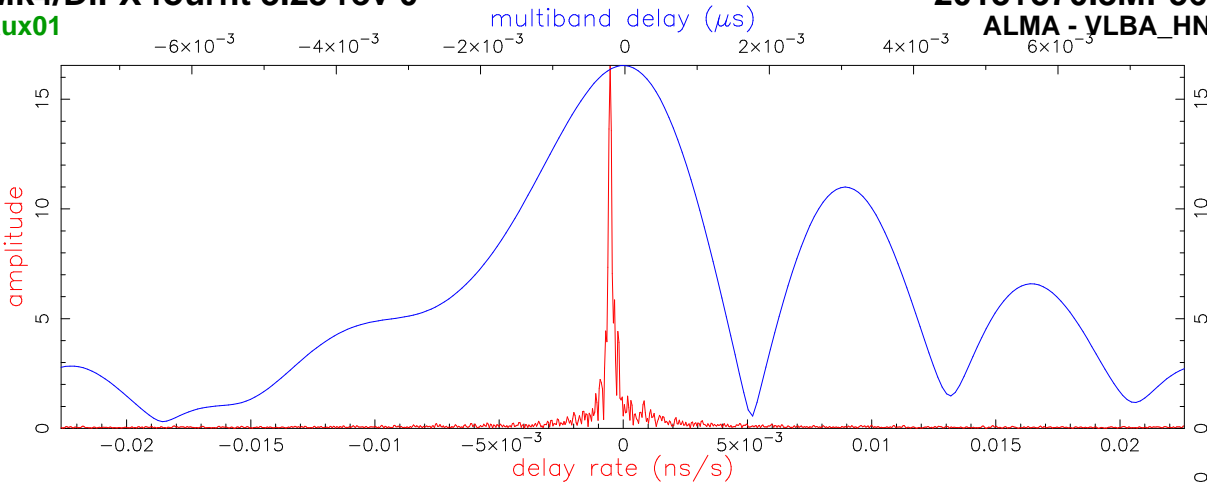
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Af..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Af.Q.4.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

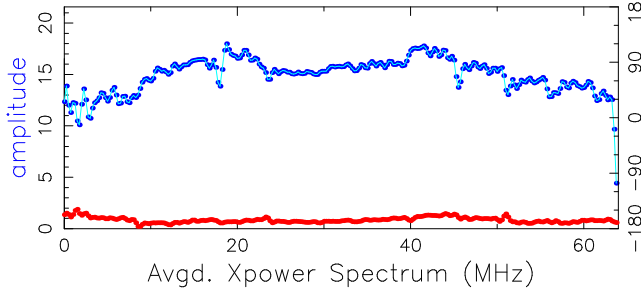
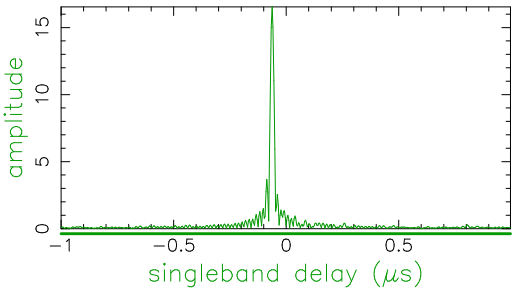
2013+370.3MP56K, No0500, Ah

ALMA - VLBA\_HN, fgroup Q, pol XR



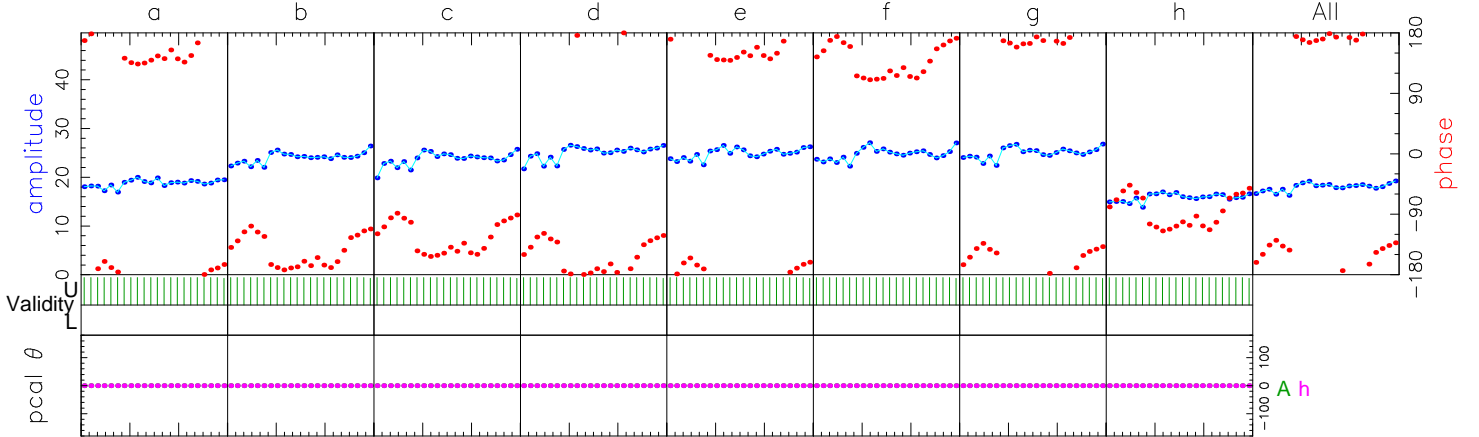
Fringe quality 4

SNR 606.8  
 Int time 179.980  
 Amp 16.544  
 Phase -255.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.062492  
 MBD -0.000021  
 Fringe rate (Hz)  
 -0.023049  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151737  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
h	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-1.25093286046E+04	Apriori delay (usec)	-1.25092660832E+04	Resid mbdelay (usec)	-2.13330E-05	+/-	1.8E-06
Sband delay (usec)	-1.25093285755E+04	Apriori clock (usec)	-2.1198450E+03	Resid sbdelay (usec)	-6.24923E-02	+/-	1.4E-05
Phase delay (usec)	-1.25092660939E+04	Apriori clockrate (us/s)	-8.9768904E-08	Resid phdelay (usec)	-1.06643E-05	+/-	1.2E-08
Delay rate (us/s)	-1.49147886632E-03	Apriori rate (us/s)	-1.49094457246E-03	Resid rate (us/s)	-5.34294E-07	+/-	1.2E-10
Total phase (deg)	-194.7	Apriori accel (us/s/s)	-1.78064024519E-05	Resid phase (deg)	-255.6	+/-	0.2

ph/seg (deg)	23.2	0.4	Amplitude	16.544 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	10.0	0.8	Search (1024X32)	16.428	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	47.8	0.3	Inc. seg. avg.	18.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	32.1	0.5	Inc. frq. avg.	20.923	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023		
A:	az 14.3 el 27.9 pa -163.6	h:	az 103.5 el 73.6 pa -63.0	u,v (fr/asec)	-11.035 -4310.605	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/c241d/v1/7mm/1234/No0500//Ah..3MP56K	Output file:	/Exps/c241d/v1/7mm/1234/No0500//Ah.Q.14.3MP56K	simultaneous interpolator				

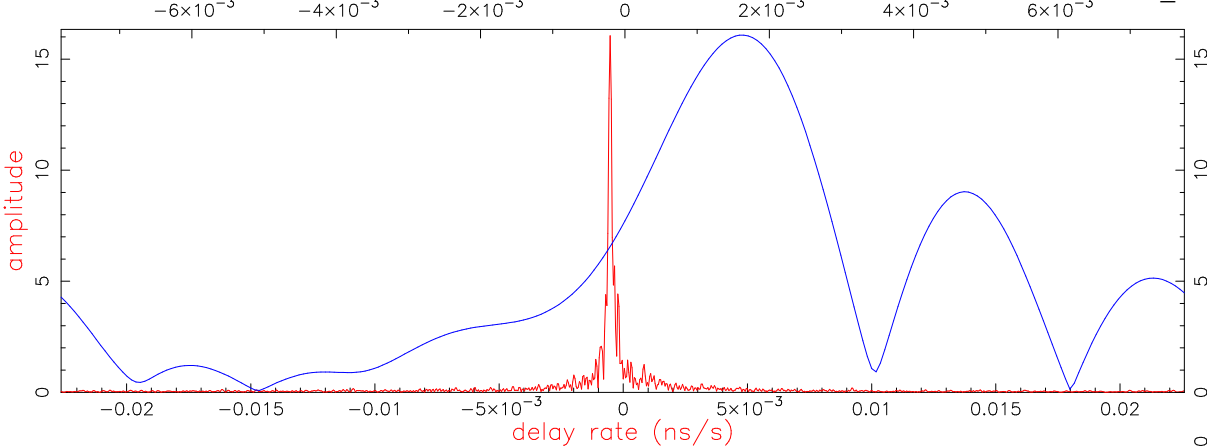
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ah

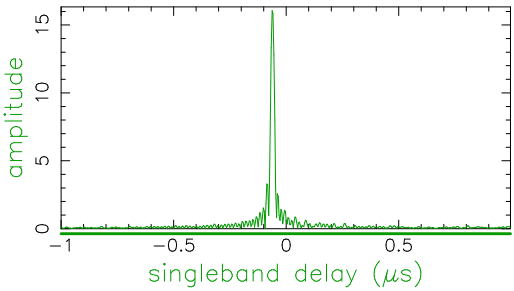
ALMA - VLBA\_HN, fgroup Q, pol YL

multiband delay ( $\mu$ s)

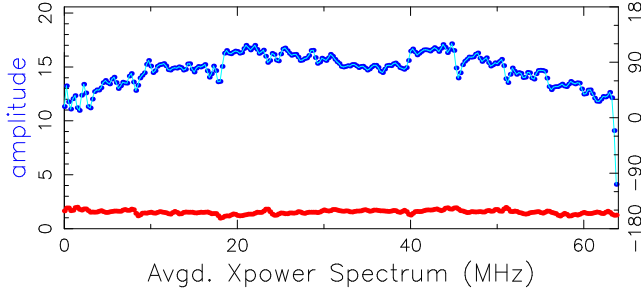


Fringe quality 4

SNR 599.3  
 Int time 179.980  
 Amp 16.340  
 Phase -243.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.060831  
 MBD 0.001700  
 Fringe rate (Hz)  
 -0.023145  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



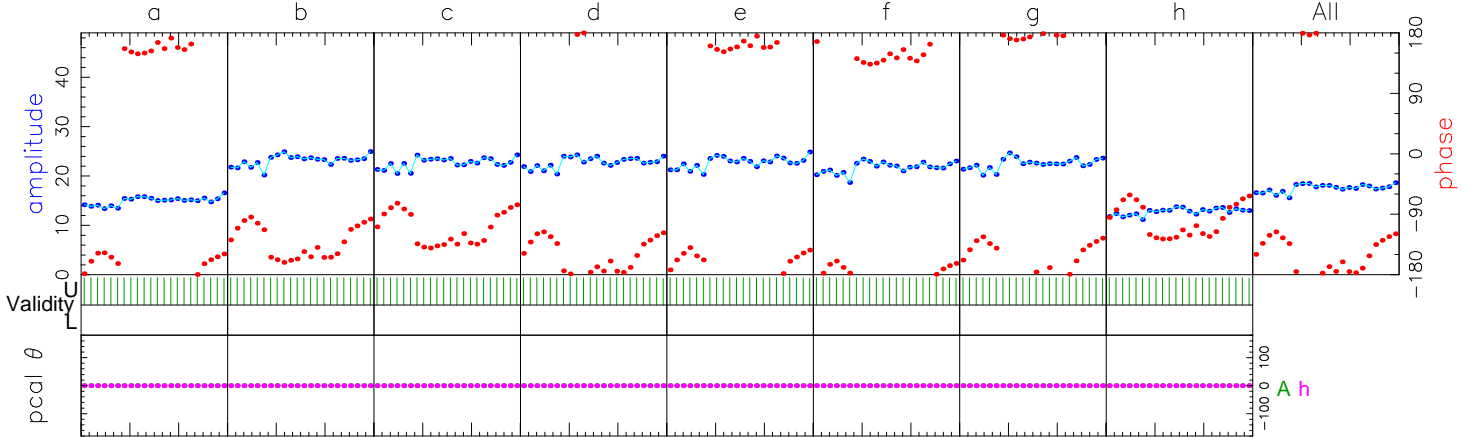
singleband delay ( $\mu$ s)



Avgd. Xpower Spectrum (MHz)

Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151739  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
h	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		Chan ids
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		Tracks

Group delay (usec) (SBD)	-1.25093268830E+04	Apriori delay (usec)	-1.25092660832E+04	Resid mbdelay (usec)	1.70020E-03	+/-	1.8E-06
Sband delay (usec)	-1.25093269142E+04	Apriori clock (usec)	-2.1198450E+03	Resid sbdelay (usec)	-6.08310E-02	+/-	1.4E-05
Phase delay (usec)	-1.25092660931E+04	Apriori clockrate (us/s)	-8.9768904E-08	Resid phdelay (usec)	-9.88455E-06	+/-	1.2E-08
Delay rate (us/s)	-1.49148108758E-03	Apriori rate (us/s)	-1.49094457246E-03	Resid rate (us/s)	-5.36515E-07	+/-	1.2E-10
Total phase (deg)	-182.6	Apriori accel (us/s/s)	-1.78064024519E-05	Resid phase (deg)	-243.5	+/-	0.2

ph/seg (deg)	RMS 23.9	Theor. 0.4	Amplitude Search (1024X32)	15.726	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	8.8	0.8	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)	37.9	0.3	Inc. seg. avg.	17.553	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	25.8	0.5	Inc. frq. avg.	18.696	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -11.035 -4310.605 simultaneous interpolator

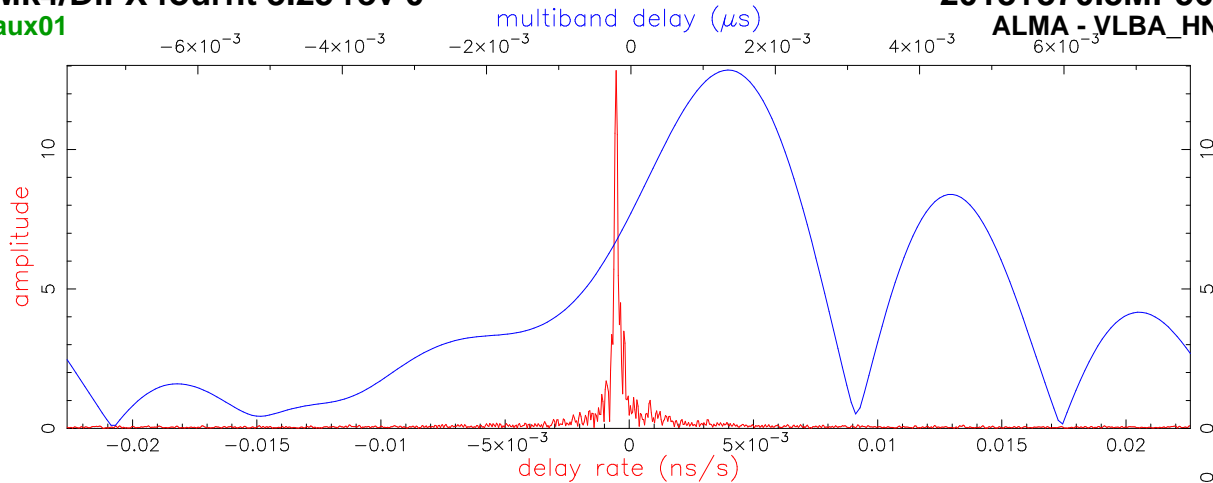
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ah..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ah.Q.24.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

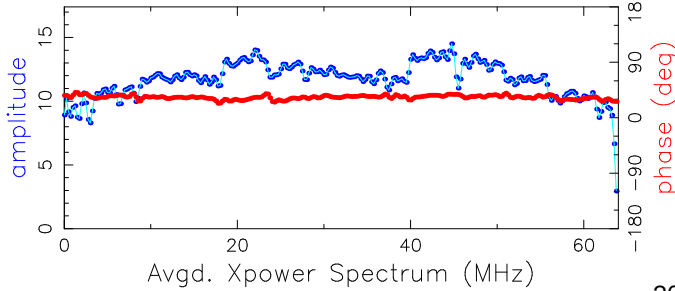
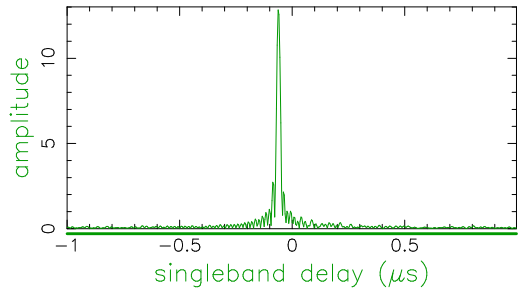
2013+370.3MP56K, No0500, Ah

ALMA - VLBA\_HN, fgroup Q, pol XL



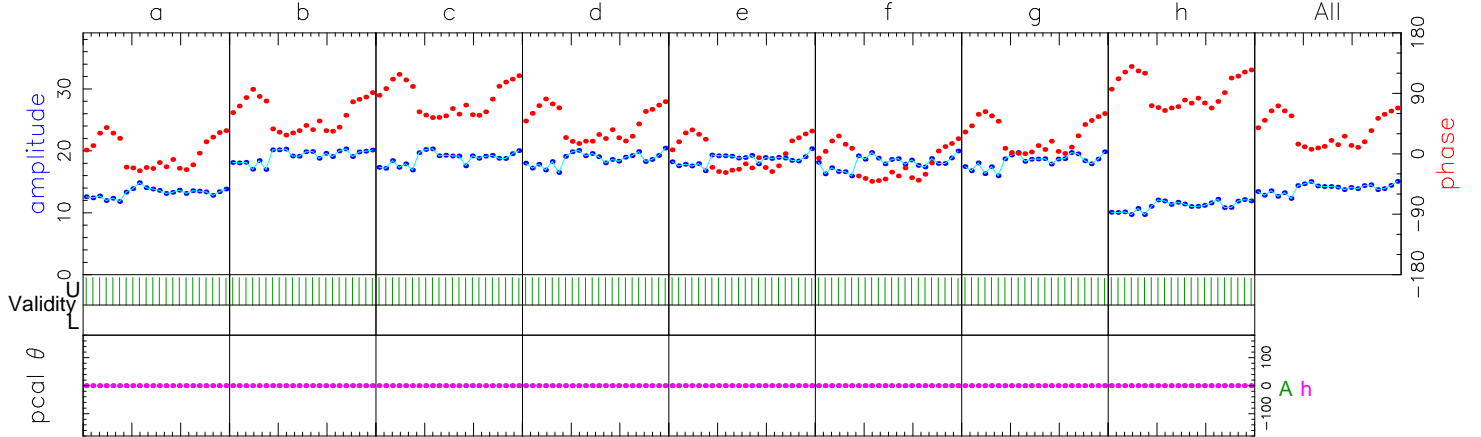
Fringe quality 4

SNR 477.5  
 Int time 179.980  
 Amp 13.019  
 Phase -55.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.060996  
 MBD 0.001410  
 Fringe rate (Hz)  
 -0.023082  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151732  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
h	1000	1000	1000	1000	1000	1000	1000	1000		
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
h	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
h	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-1.25093271729E+04	Apriori delay (usec)	-1.25092660832E+04	Resid mbdelay (usec)	1.41029E-03	+/-	2.3E-06
Sband delay (usec)	-1.25093270787E+04	Apriori clock (usec)	-2.1198450E+03	Resid sbdelay (usec)	-6.09955E-02	+/-	1.8E-05
Phase delay (usec)	-1.25092660810E+04	Apriori clockrate (us/s)	-8.9768904E-08	Resid phdelay (usec)	2.20942E-06	+/-	1.5E-08
Delay rate (us/s)	-1.49147962466E-03	Apriori rate (us/s)	-1.49094457246E-03	Resid rate (us/s)	-5.35052E-07	+/-	1.5E-10
Total phase (deg)	-354.7	Apriori accel (us/s/s)	-1.78064024519E-05	Resid phase (deg)	-55.7	+/-	0.2

ph/seg (deg)	23.2	RMS	23.2	Theor.	0.6	Amplitude	13.019 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	9.0		9.0		1.0	Search (1024X32)	12.735	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
ph/frq (deg)	42.5		42.5		0.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.023	0.023
amp/frq (%)	28.4		28.4		0.6	Inc. seg. avg.	13.955	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	nlags:	256	ion window (TEC)	0.00	0.00
						Inc. frq. avg.	15.639	Data rate(Mb/s):	2048	t_cohere	infinite			

A: az 14.3 el 27.9 pa -163.6 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -11.035 -4310.605 simultaneous interpolator

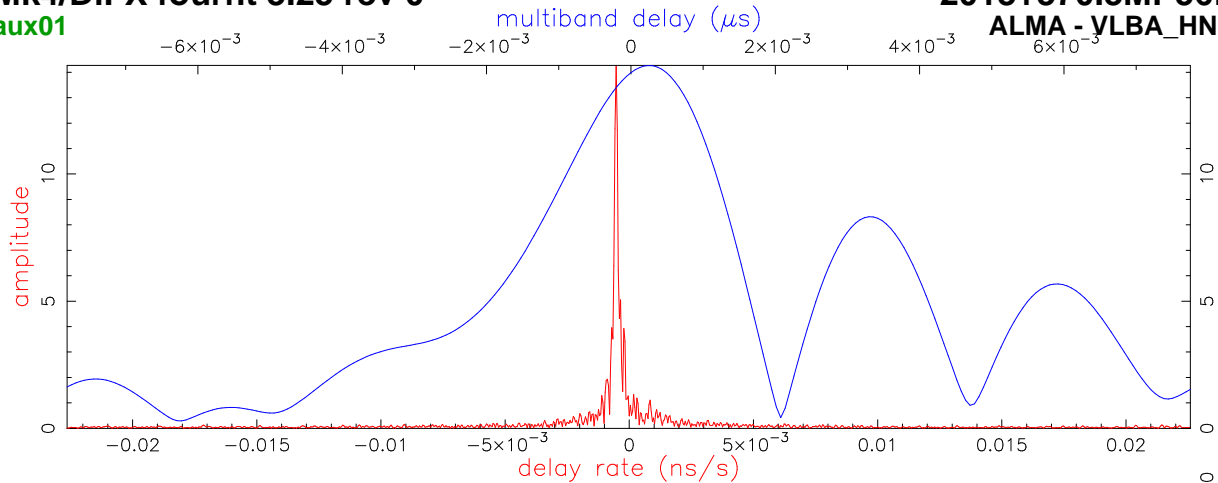
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ah..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ah.Q.3.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

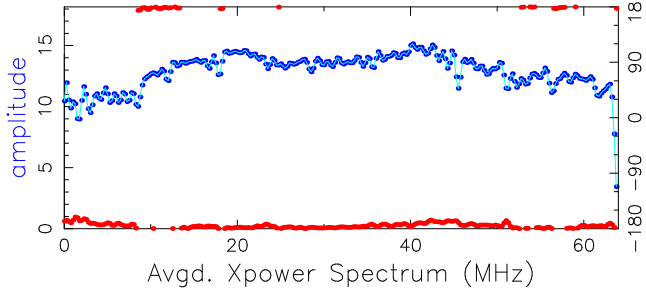
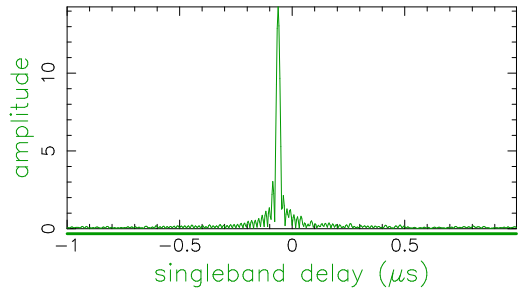
2013+370.3MP56K, No0500, Ah

ALMA - VLBA\_HN, fgroup Q, pol YR



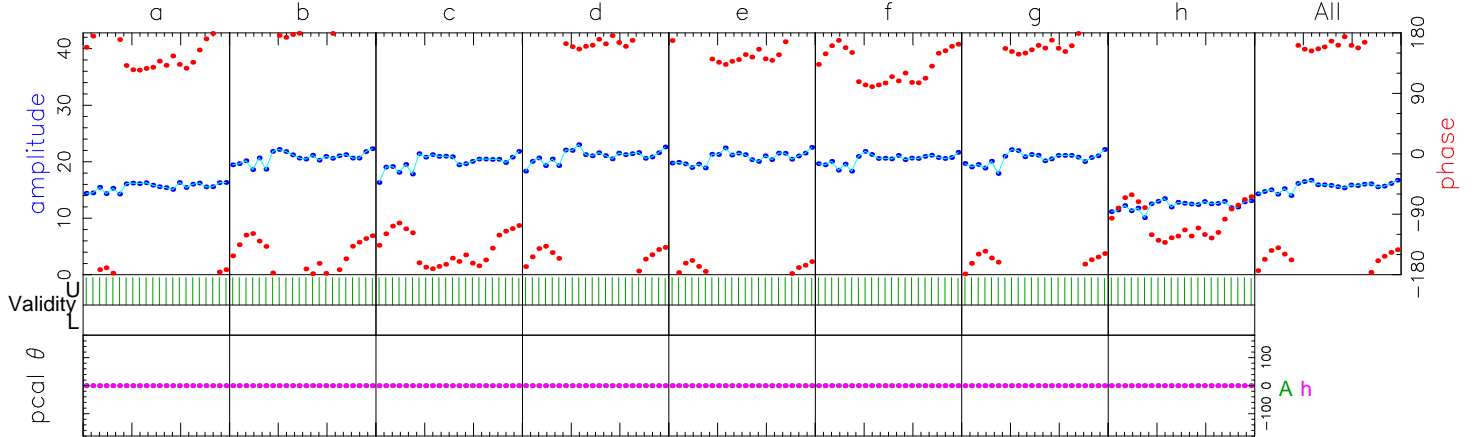
Fringe quality 4

SNR 523.4  
 Int time 179.980  
 Amp 14.270  
 Phase -267.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.062369  
 MBD 0.000257  
 Fringe rate (Hz)  
 -0.023083  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151734  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All			
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0					
A	0	0	0	0	0	0	0	0					
h	1000	1000	1000	1000	1000	1000	1000	1000					
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
A:h	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0					
A	1000	1000	1000	1000	1000	1000	1000	1000					
h	1000	1000	1000	1000	1000	1000	1000	1000					
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY					
h	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR					
Group delay (usec) (SBD)	-1.25093283263E+04	-1.25093284522E+04	-1.25092660947E+04	-1.49147964730E-03	-206.4	Apriori delay (usec)	-1.25092660832E+04	Apriori clock (usec)	-2.1198450E+03	Resid mbdelay (usec)	2.56980E-04	+/-	2.1E-06
Sband delay (usec)	-1.25093284522E+04	Apriori clockrate (us/s)	-8.9768904E-08	Resid sbdelay (usec)	-6.23690E-02	+/-	1.6E-05						
Phase delay (usec)	-1.25092660947E+04	Apriori rate (us/s)	-1.49094457246E-03	Resid phdelay (usec)	-1.14223E-05	+/-	1.4E-08						
Delay rate (us/s)	-1.49147964730E-03	Apriori accel (us/s/s)	-1.78064024519E-05	Resid rate (us/s)	-5.35075E-07	+/-	1.4E-10						
Total phase (deg)	-267.4	Resid phase (deg)	-267.4	+/-	0.2								

ph/seg (deg) 24.0 0.5  
 amp/seg (%) 10.7 0.9  
 ph/frq (deg) 44.5 0.3  
 amp/frq (%) 28.6 0.5

RMS Theor. Amplitude 14.270 +/- 0.027  
 Search (1024X32) 13.988  
 Interp. 0.000  
 Inc. seg. avg. 15.613  
 Inc. frq. avg. 17.277

Group delay (usec) (SBD) -1.25093283263E+04  
 Sband delay (usec) -1.25093284522E+04  
 Phase delay (usec) -1.25092660947E+04  
 Delay rate (us/s) -1.49147964730E-03  
 Total phase (deg) -267.4

Apriori delay (usec) -1.25092660832E+04  
 Apriori clock (usec) -2.1198450E+03  
 Apriori clockrate (us/s) -8.9768904E-08  
 Apriori rate (us/s) -1.49094457246E-03  
 Apriori accel (us/s/s) -1.78064024519E-05

Resid mbdelay (usec) 2.56980E-04  
 Resid sbdelay (usec) -6.23690E-02  
 Resid phdelay (usec) -1.14223E-05  
 Resid rate (us/s) -5.35075E-07  
 Resid phase (deg) -267.4

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 PCal rate: 0.000E+00, 0.000E+00 (us/s)  
 Bits/sample: 2x2 SampCntNorm: enabled  
 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) -0.023 0.023  
 ion window (TEC) 0.00 0.00

A: az 14.3 el 27.9 pa -163.6 h: az 103.5 el 73.6 pa -63.0 u,v (fr/asec) -11.035 -4310.605 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ah..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ah.Q.9.3MP56K



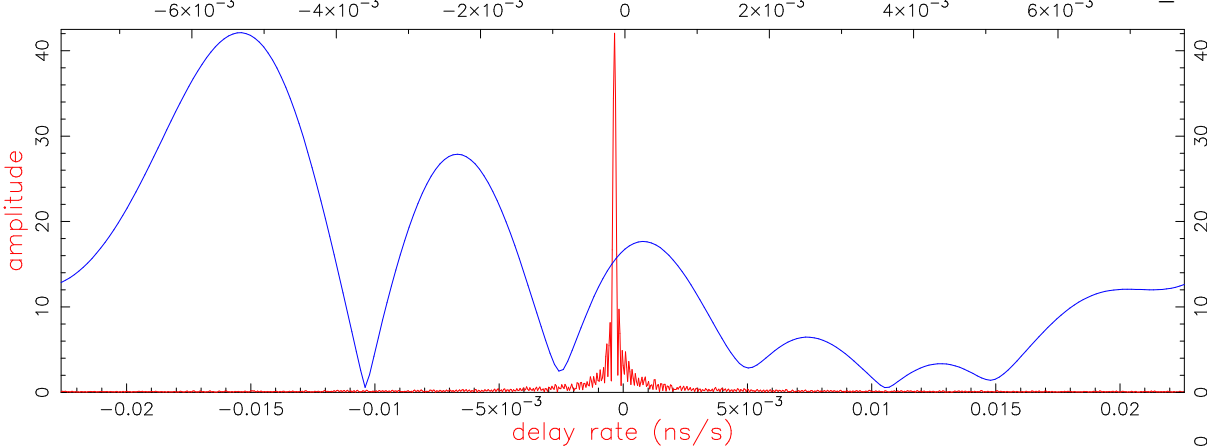
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ak

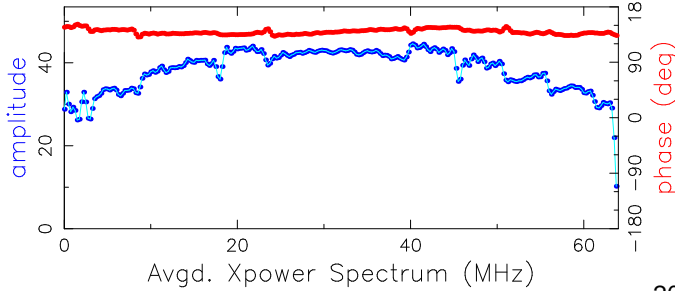
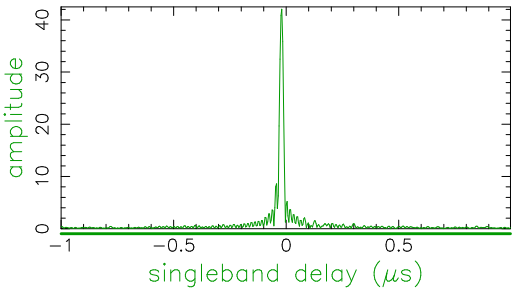
ALMA - VLBA\_KP, fgroup Q, pol YR

multiband delay ( $\mu$ s)



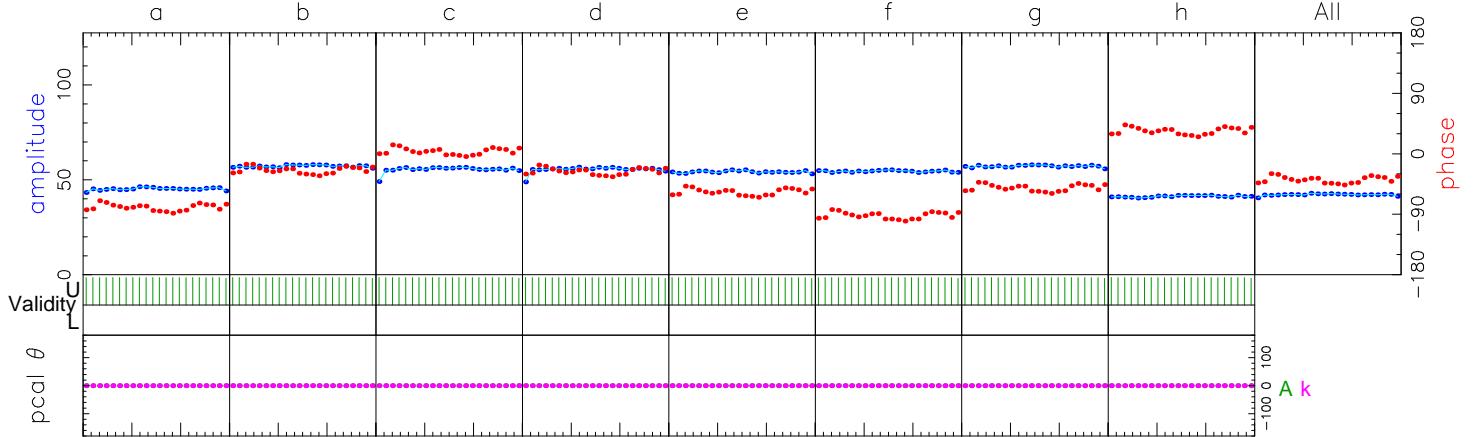
Fringe quality 6

SNR 1558.8  
 Int time 179.986  
 Amp 42.493  
 Phase -241.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.020872  
 MBD -0.005400  
 Fringe rate (Hz)  
 -0.015839  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151736  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-79.6	-24.5	3.6	-26.2	-56.8	-91.9	-50.7	33.9	Phase	-38.6
	45.1	57.0	55.3	55.3	54.0	54.4	57.0	41.2	Ampl.	52.4
	253.5	251.6	251.5	251.5	251.3	251.4	251.9	253.7	Sbd box	251.7
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-6.18696727061E+03	Apriori delay (usec)	-6.18694624565E+03	Resid mbdelay (usec)	-5.39996E-03	+/-	7.0E-07
Sband delay (usec)	-6.18696711815E+03	Apriori clock (usec)	-2.1075728E+03	Resid sbdelay (usec)	-2.08725E-02	+/-	5.5E-06
Phase delay (usec)	-6.18694624814E+03	Apriori clockrate (us/s)	-1.6303799E-07	Resid phdelay (usec)	-2.48293E-06	+/-	4.7E-09
Delay rate (us/s)	-5.98141286447E-01	Apriori rate (us/s)	-5.98140919285E-01	Resid rate (us/s)	-3.67162E-07	+/-	4.5E-11
Total phase (deg)	-254.6	Apriori accel (us/s/s)	-4.09993538980E-05	Resid phase (deg)	-241.1	+/-	0.1

ph/seg (deg)	4.8	RMS	42.493 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	1.4	Theor.	41.131	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	45.4	Search (1024X32)	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	26.8	Interp.	42.185	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
		Inc. seg. avg.	52.419	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
		Inc. frq. avg.						

A: az 14.3 el 27.9 pa -163.6 k: az 66.3 el 41.3 pa -77.6 u, v (fr/asec) 2130.826 -4482.352 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ak..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ak.Q.13.3MP56K

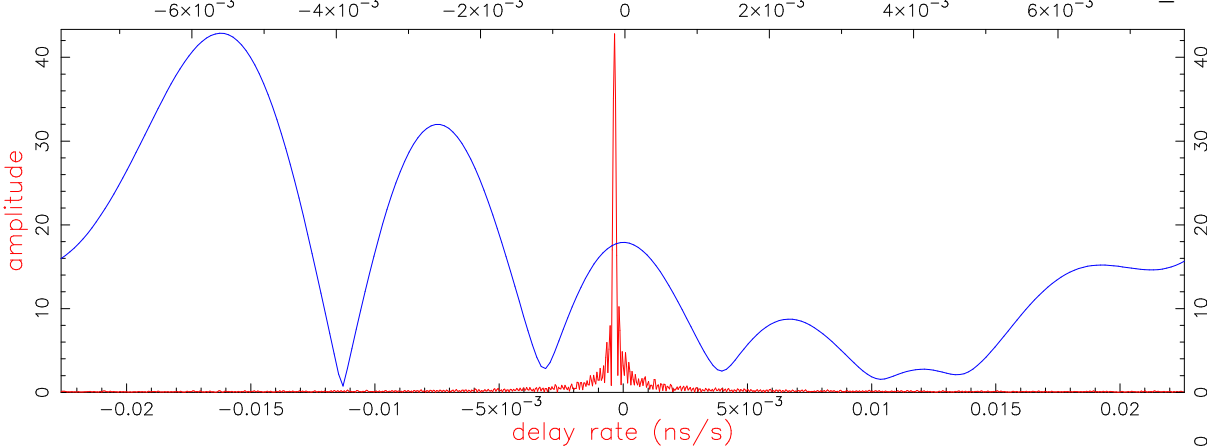
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ak

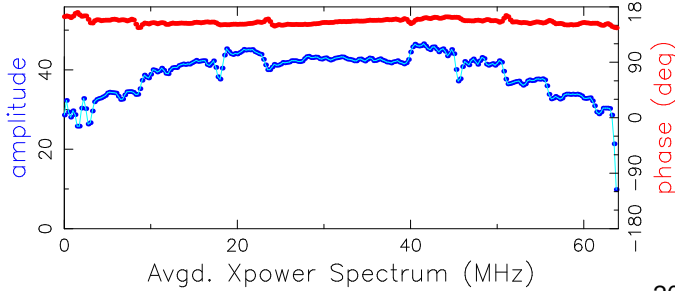
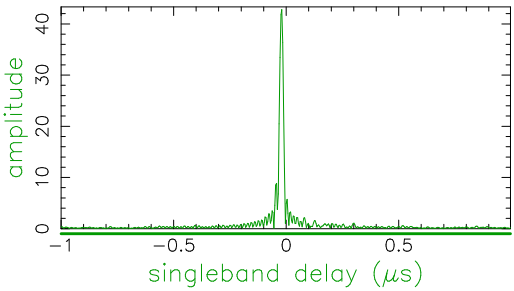
ALMA - VLBA\_KP, fgroup Q, pol XR

multiband delay ( $\mu$ s)



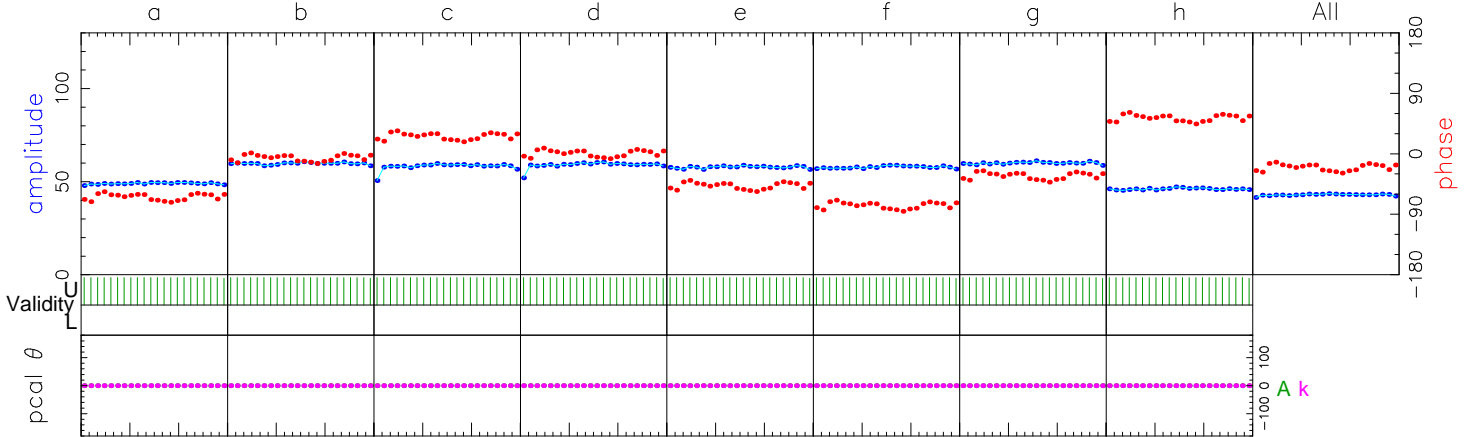
Fringe quality 6

SNR 1589.7  
 Int time 179.986  
 Amp 43.337  
 Phase -222.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.020973  
 MBD -0.005674  
 Fringe rate (Hz)  
 -0.015797  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151739  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-64.1	-6.0	26.0	0.6	-47.6	-77.1	-32.9	53.1	Phase	-20.3
	48.9	59.6	58.1	58.8	57.7	57.7	59.8	46.0	Ampl.	55.8
	253.3	251.5	251.5	251.5	251.3	251.4	251.9	253.5	Sbd box	251.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
k	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-6.18696754483E+03	Apriori delay (usec)	-6.18694624565E+03	Resid mbdelay (usec)	-5.67418E-03	+/-	6.8E-07
Sband delay (usec)	-6.18696721840E+03	Apriori clock (usec)	-2.1075728E+03	Resid sbdelay (usec)	-2.09727E-02	+/-	5.4E-06
Phase delay (usec)	-6.18694624696E+03	Apriori clockrate (us/s)	-1.6303799E-07	Resid phdelay (usec)	-1.30485E-06	+/-	4.6E-09
Delay rate (us/s)	-5.98141285474E-01	Apriori rate (us/s)	-5.98140919285E-01	Resid rate (us/s)	-3.66188E-07	+/-	4.5E-11
Total phase (deg)	-236.3	Apriori accel (us/s/s)	-4.09993538980E-05	Resid phase (deg)	-222.8	+/-	0.1

ph/seg (deg)	4.8	RMS	4.8	Theor.	0.2	Amplitude	43.337 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	1.4		0.2			Search (1024X32)	41.423	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	48.7		0.1			Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	31.0		0.2			Inc. seg. avg.	42.951	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	55.812	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 2130.826 -4482.352 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ak..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ak.Q.23.3MP56K

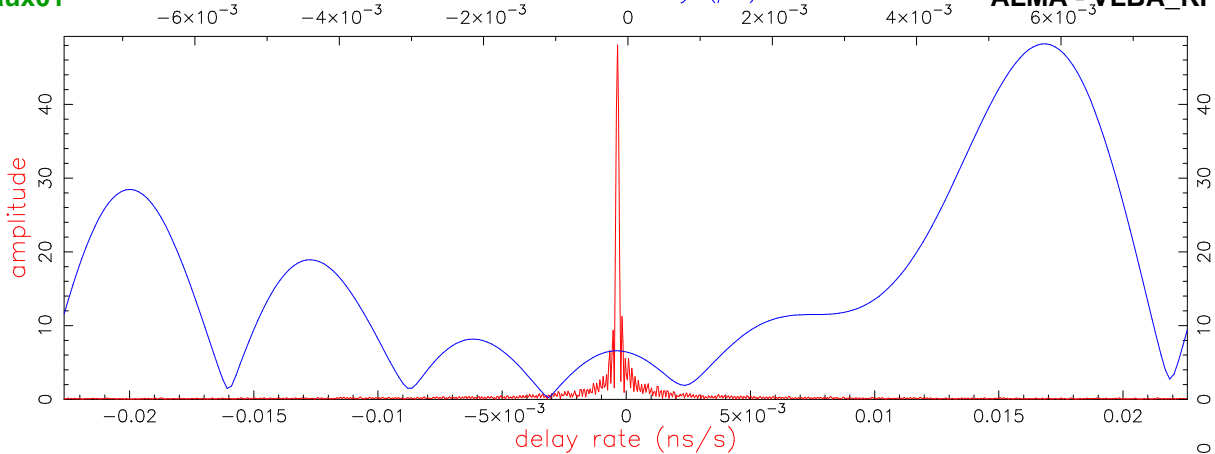
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ak

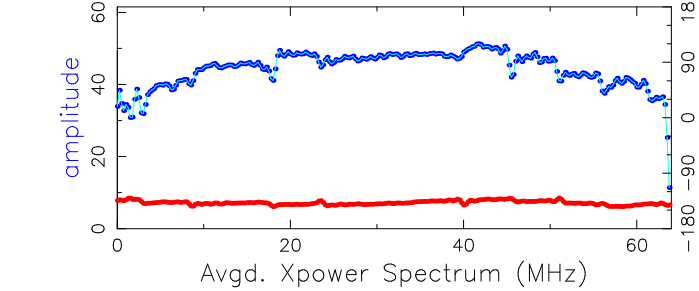
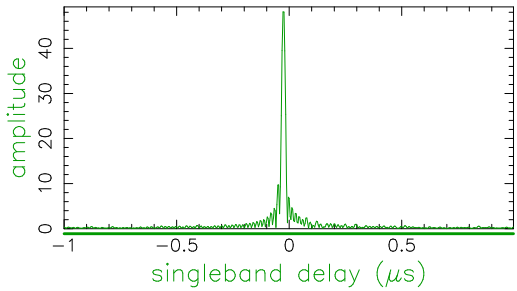
ALMA - VLBA\_KP, fgroup Q, pol YL

multiband delay ( $\mu$ s)



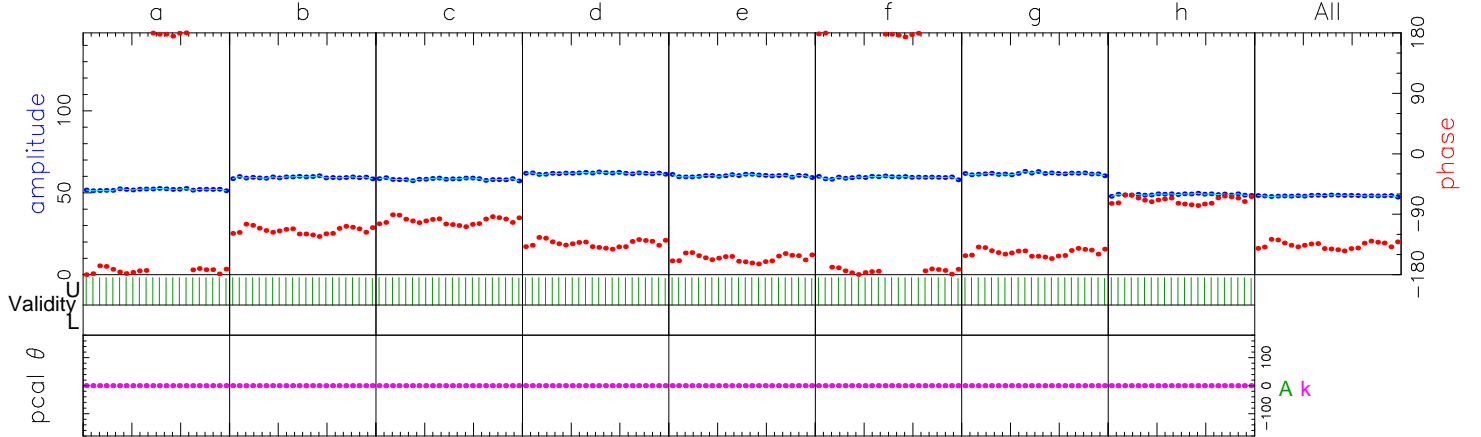
Fringe quality 7

SNR 1805.4  
 Int time 179.984  
 Amp 49.215  
 Phase -181.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.025424  
 MBD 0.005672  
 Fringe rate (Hz)  
 -0.015855  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151740  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-176.0	-114.3	-99.8	-133.7	-155.3	-177.2	-147.1	-69.2	Phase	-136.1
	51.8	59.2	58.1	61.7	60.2	59.3	61.5	48.8	Ampl.	57.6
	252.1	250.2	250.3	250.5	250.3	250.4	250.5	252.5	Sbd box	250.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-6.18697182390E+03	Apriori delay (usec)	-6.18694624565E+03	Resid mbdelay (usec)	5.67176E-03	+/-	6.0E-07
Sband delay (usec)	-6.18697166915E+03	Apriori clock (usec)	-2.1075728E+03	Resid sbdelay (usec)	-2.54235E-02	+/-	4.8E-06
Phase delay (usec)	-6.18694625442E+03	Apriori clockrate (us/s)	-1.6303799E-07	Resid phdelay (usec)	-8.76196E-06	+/-	4.1E-09
Delay rate (us/s)	-5.98141286815E-01	Apriori rate (us/s)	-5.98140919285E-01	Resid rate (us/s)	-3.67530E-07	+/-	3.9E-11
Total phase (deg)	-194.6	Apriori accel (us/s/s)	-4.09993538980E-05	Resid phase (deg)	-181.1	+/-	0.1

ph/seg (deg)	4.9	RMS	4.9	Theor.	0.1	Amplitude	49.215 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	2.1		0.1			Search (1024X32)	47.060	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.9		0.1			Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	19.2		0.2			Inc. seg. avg.	48.214	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	57.589	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 2130.826 -4482.352 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ak..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ak.Q.37.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

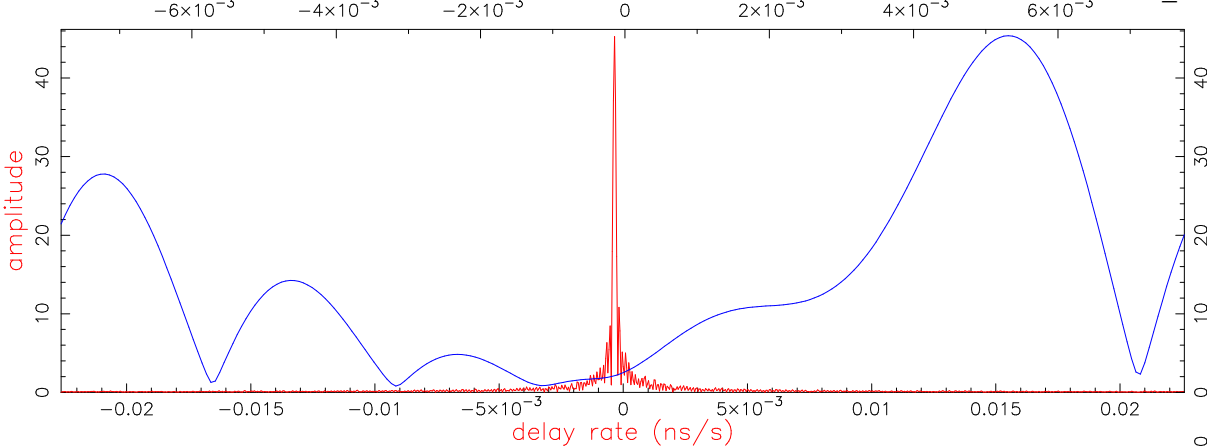
aux01

2013+370.3MP56K, No0500, Ak

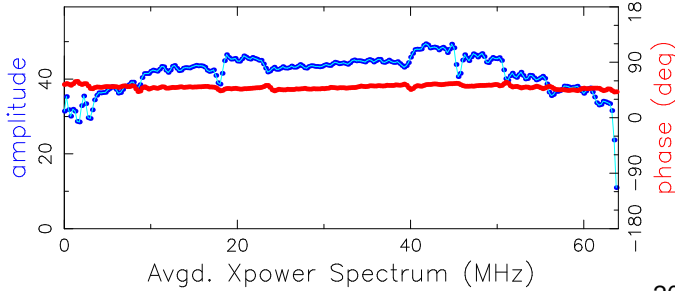
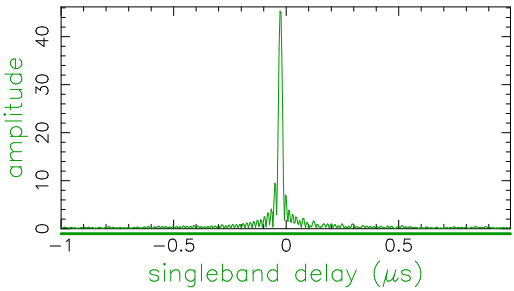
ALMA - VLBA\_KP, fgroup Q, pol XL

multiband delay ( $\mu$ s)

Fringe quality 6

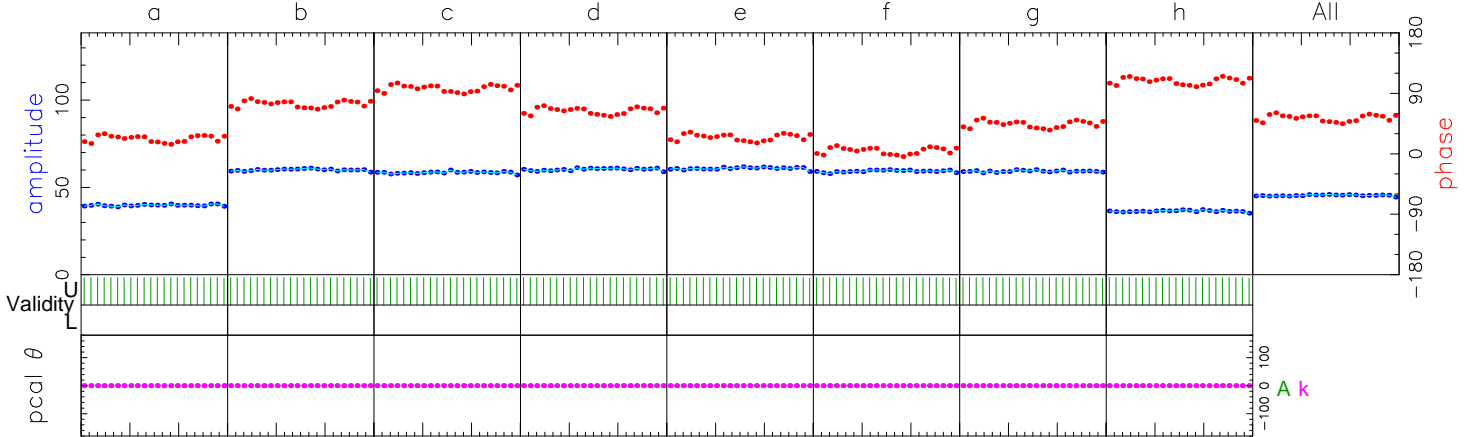


SNR 1694.5  
 Int time 179.984  
 Amp 46.192  
 Phase -351.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.025563  
 MBD 0.005393  
 Fringe rate (Hz)  
 -0.015815  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151733  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
k	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD) -6.18697210268E+03 Apriori delay (usec) -6.18694624565E+03 Resid mbdelay (usec) 5.39298E-03 +/- 6.4E-07  
 Sband delay (usec) -6.18697180815E+03 Apriori clock (usec) -2.1075728E+03 Resid sbdelay (usec) -2.55625E-02 +/- 5.1E-06  
 Phase delay (usec) -6.18694624223E+03 Apriori clockrate (us/s) -1.6303799E-07 Resid phdelay (usec) 3.41949E-06 +/- 4.4E-09  
 Delay rate (us/s) -5.98141285878E-01 Apriori rate (us/s) -5.98140919285E-01 Resid rate (us/s) -3.66593E-07 +/- 4.2E-11  
 Total phase (deg) -5.4 Apriori accel (us/s/s) -4.09993538980E-05 Resid phase (deg) -351.9 +/- 0.1

ph/seg (deg) 4.7 0.2 Search (1024X32) 44.477 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 1.8 0.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 40.4 0.1 Inc. seg. avg. 45.453 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 26.7 0.2 Inc. frq. avg. 54.175 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

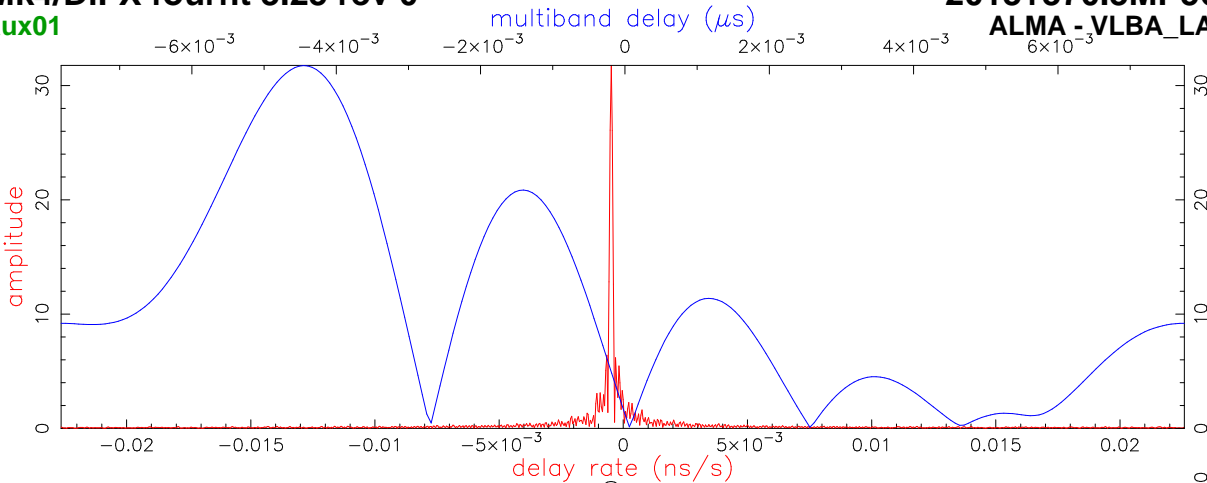
A: az 14.3 el 27.9 pa -163.6 k: az 66.3 el 41.3 pa -77.6 u,v (fr/asec) 2130.826 -4482.352 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ak..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ak.Q.6.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

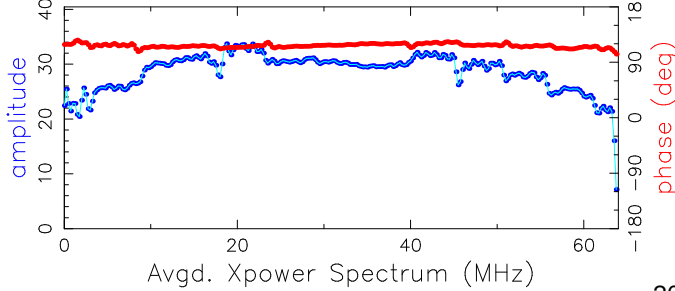
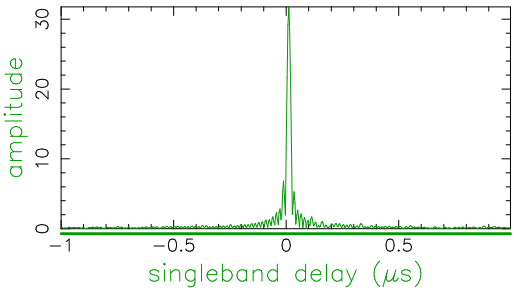
2013+370.3MP56K, No0500, AI

ALMA - VLBA\_LA, fgroup Q, pol XL



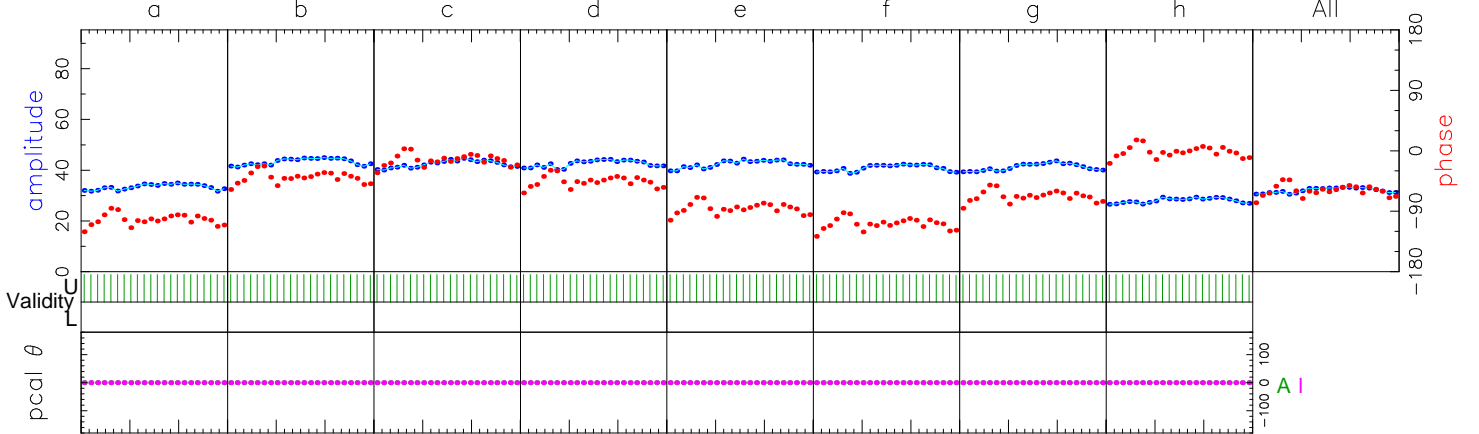
Fringe quality 6

SNR 1165.4  
 Int time 179.984  
 Amp 31.771  
 Phase 143.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.011478  
 MBD -0.004459  
 Fringe rate (Hz)  
 -0.020223  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151737  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-102.4	-39.7	-13.5	-45.6	-85.8	-108.7	-67.7	-1.5	Phase	-59.3
	33.1	42.9	42.0	42.2	42.1	40.4	40.9	27.8	Ampl.	38.9
	261.5	259.8	259.8	259.8	259.9	259.8	259.9	261.8	Sbd box	259.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
I	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD) -7.64659930942E+03 Apriori delay (usec) -7.64661047493E+03 Resid mbdelay (usec) -4.45949E-03 +/- 9.3E-07  
 Sband delay (usec) -7.64659899718E+03 Apriori clock (usec) -2.0991233E+03 Resid sbdelay (usec) 1.14777E-02 +/- 7.4E-06  
 Phase delay (usec) -7.64661047875E+03 Apriori clockrate (us/s) 2.2316914E-07 Resid phdelay (usec) -3.81788E-06 +/- 6.3E-09  
 Delay rate (us/s) -5.07240616072E-01 Apriori rate (us/s) -5.07240147290E-01 Resid rate (us/s) -4.68782E-07 +/- 6.1E-11  
 Total phase (deg) 183.3 Apriori accel (us/s/s) -3.69698151780E-05 Resid phase (deg) 143.2 +/- 0.1

RMS Theor. Amplitude 31.771 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 8.2 0.2 Search (1024X32) 30.668 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 3.2 0.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 43.0 0.1 Inc. seg. avg. 32.076 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 27.7 0.2 Inc. frq. avg. 38.923 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

A: az 14.3 el 27.9 pa -163.6 I: az 71.2 el 46.9 pa -74.8 u,v (fr/asec) 1804.425 -4555.055 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AI..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AI.Q.17.3MP56K

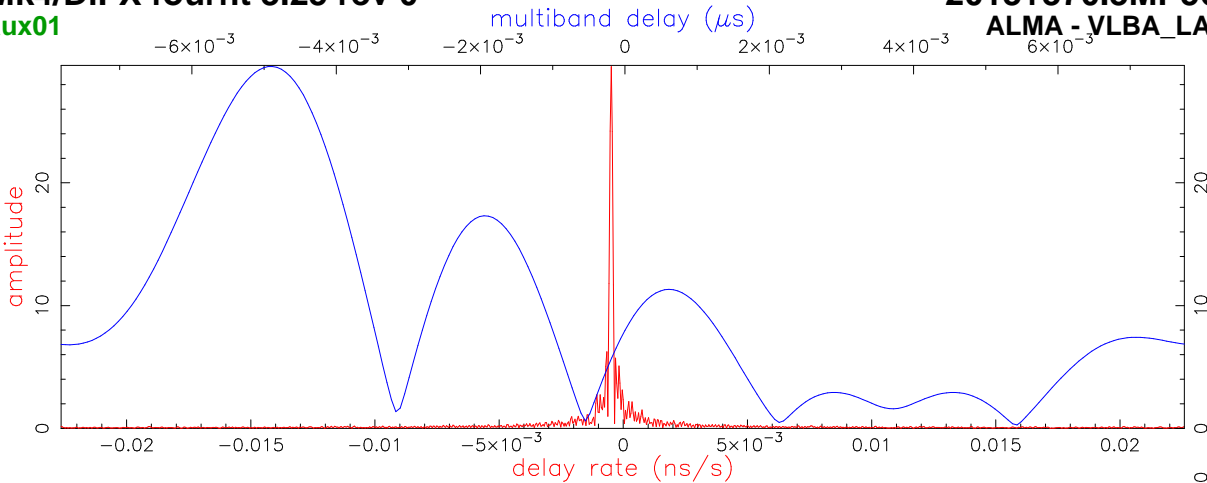
Mk4/DiFX fourfit 3.25 rev 0

aux01

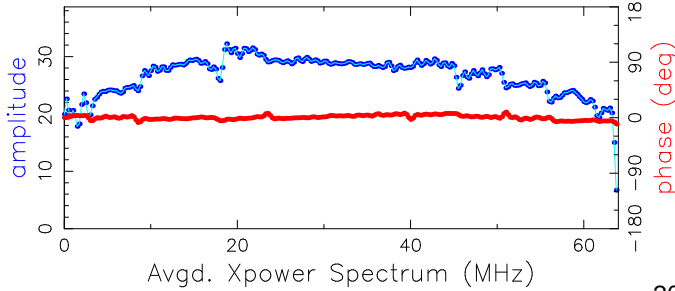
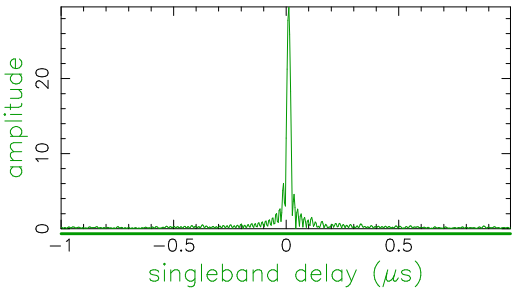
2013+370.3MP56K, No0500, AI

ALMA - VLBA\_LA, fgroup Q, pol YR

Fringe quality 6

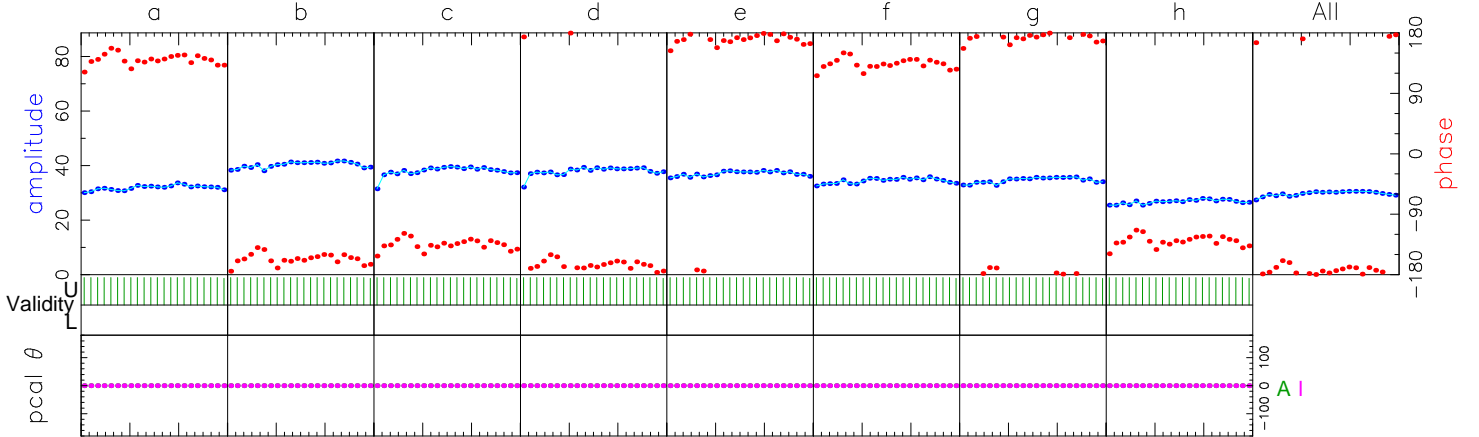


SNR 1084.6  
 Int time 179.984  
 Amp 29.568  
 Phase 27.0  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.011008  
 MBD -0.004939  
 Fringe rate (Hz)  
 -0.020251  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151740  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		
I	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) -7.64659978886E+03 Apriori delay (usec) -7.64661047493E+03 Resid mbdelay (usec) -4.93893E-03 +/- 1.0E-06  
 Sband delay (usec) -7.64659946718E+03 Apriori clock (usec) -2.0991233E+03 Resid sbdelay (usec) 1.10078E-02 +/- 7.9E-06  
 Phase delay (usec) -7.64661048623E+03 Apriori clockrate (us/s) 2.2316914E-07 Resid phdelay (usec) -1.13006E-05 +/- 6.8E-09  
 Delay rate (us/s) -5.07240616711E-01 Apriori rate (us/s) -5.07240147290E-01 Resid rate (us/s) -4.69422E-07 +/- 6.5E-11  
 Total phase (deg) 67.1 Apriori accel (us/s/s) -3.69698151780E-05 Resid phase (deg) 27.0 +/- 0.1

RMS Theor. Amplitude 29.568 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 8.0 0.2 Search (1024X32) 28.529 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 2.8 0.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 38.8 0.1 Inc. seg. avg. 29.758 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 22.3 0.3 Inc. frq. avg. 34.831 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

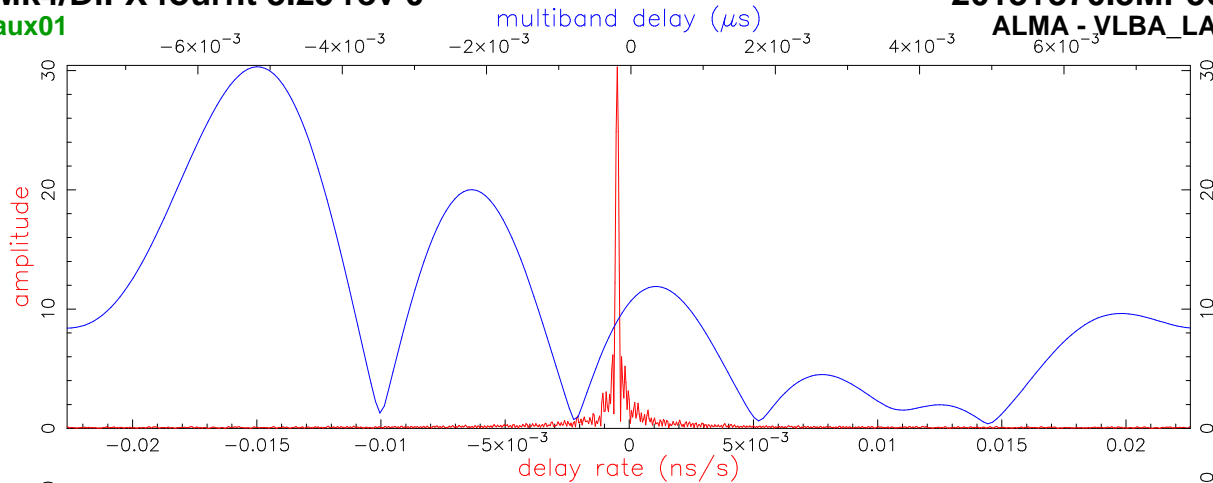
A: az 14.3 el 27.9 pa -163.6 I: az 71.2 el 46.9 pa -74.8 u,v (fr/asec) 1804.425 -4555.055 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AI..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AI.Q.38.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

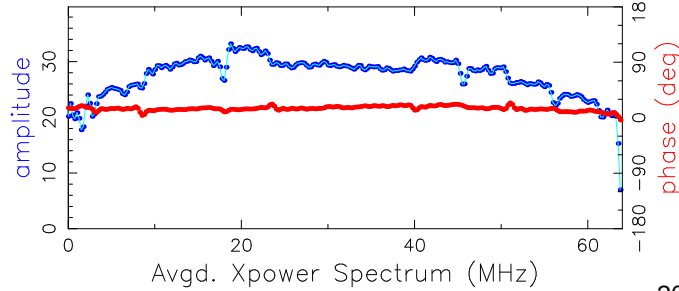
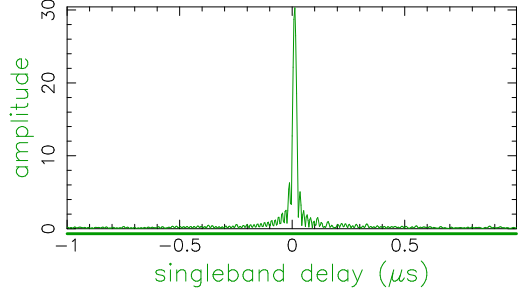
2013+370.3MP56K, No0500, AI

ALMA - VLBA\_LA, fgroup Q, pol XR



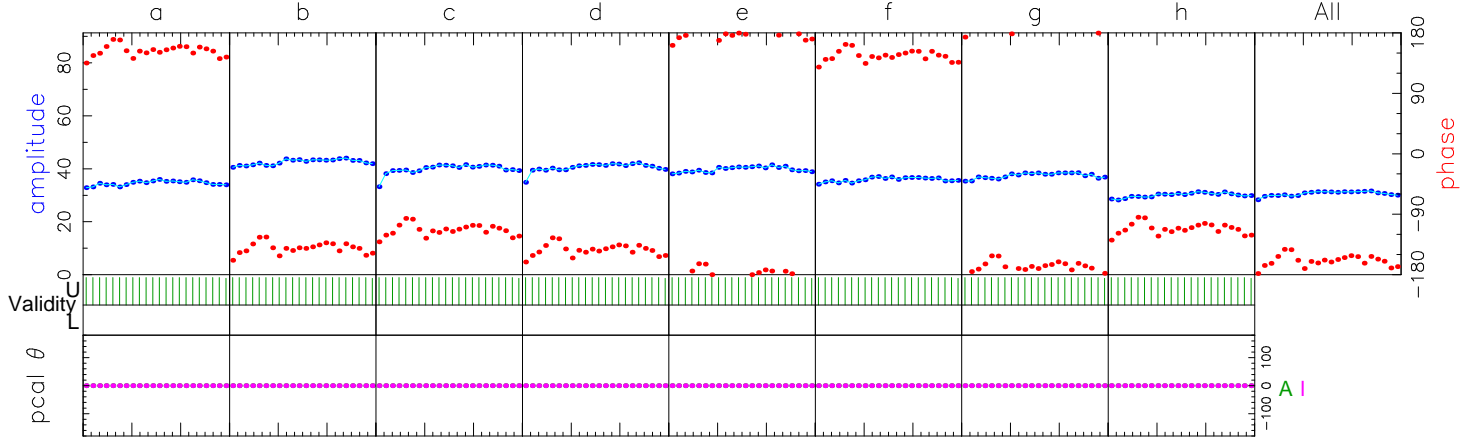
Fringe quality 6

SNR 1116.4  
 Int time 179.984  
 Amp 30.437  
 Phase 43.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.010892  
 MBD -0.005210  
 Fringe rate (Hz)  
 -0.020202  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151743  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
I	1000	1000	1000	1000	1000	1000	1000	1000		
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
I	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-7.64660006008E+03	Apriori delay (usec)	-7.64661047493E+03	Resid mbdelay (usec)	-5.21015E-03	+/-	9.7E-07
Sband delay (usec)	-7.64659958293E+03	Apriori clock (usec)	-2.0991233E+03	Resid sbdelay (usec)	1.08920E-02	+/-	7.7E-06
Phase delay (usec)	-7.64661048518E+03	Apriori clockrate (us/s)	2.2316914E-07	Resid phdelay (usec)	-1.02451E-05	+/-	6.6E-09
Delay rate (us/s)	-5.07240615588E-01	Apriori rate (us/s)	-5.07240147290E-01	Resid rate (us/s)	-4.68298E-07	+/-	6.4E-11
Total phase (deg)		Apriori accel (us/s/s)	-3.69698151780E-05	Resid phase (deg)	43.4	+/-	0.1

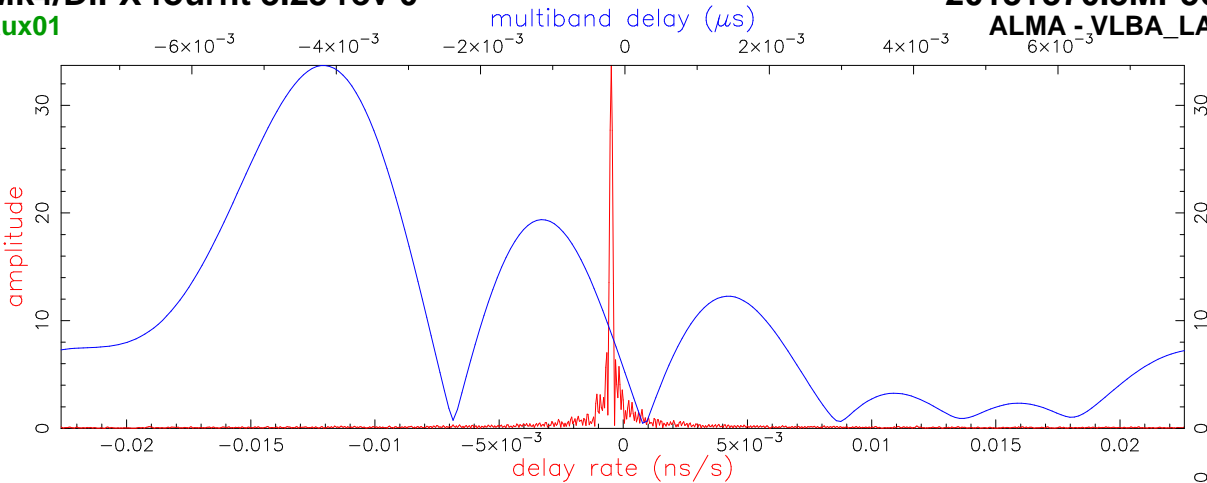
ph/seg (deg) 8.4 0.2 Theor. Amplitude 30.437 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 2.8 0.4 Search (1024X32) 28.618 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 42.5 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 25.4 0.3 Inc. seg. avg. 30.629 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 Inc. frq. avg. 37.219 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 A: az 14.3 el 27.9 pa -163.6 I: az 71.2 el 46.9 pa -74.8 u,v (fr/asec) 1804.425 -4555.055 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AI..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AI.Q.47.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

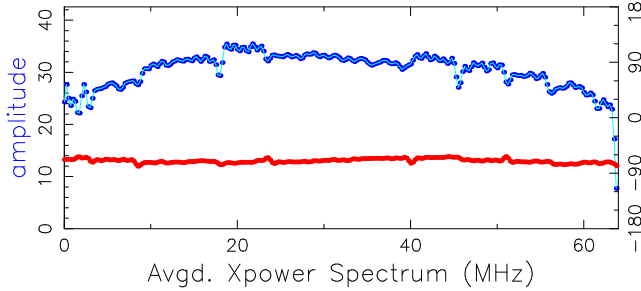
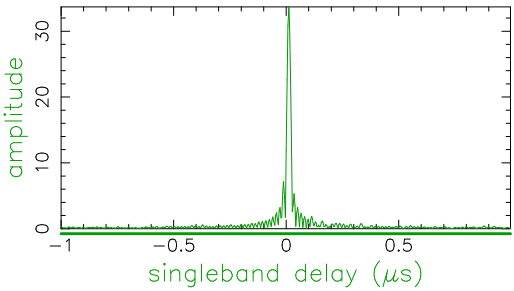
2013+370.3MP56K, No0500, AI

ALMA - VLBA\_LA, fgroup Q, pol YL



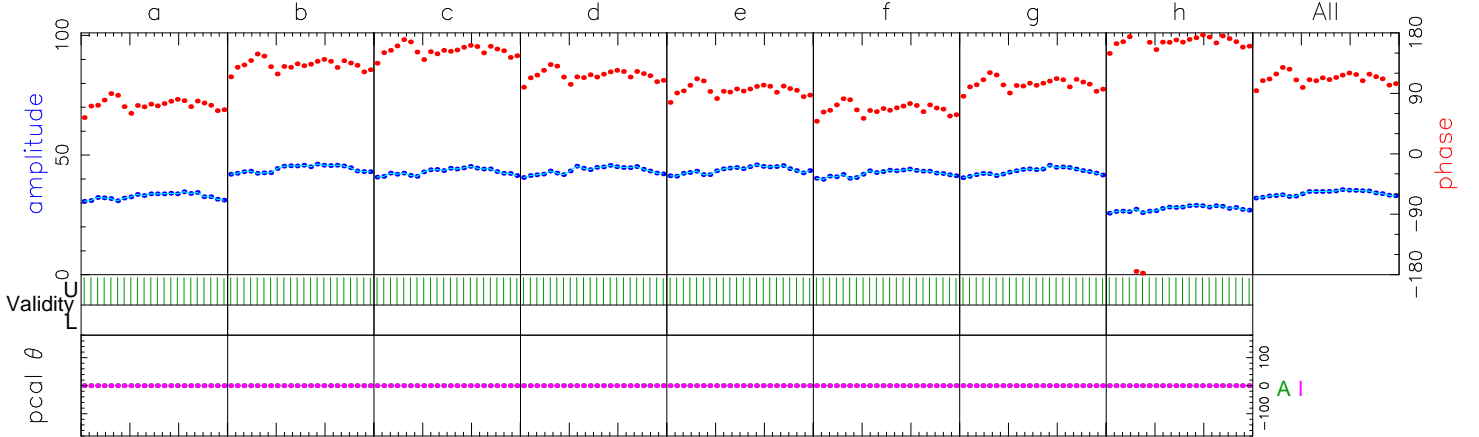
Fringe quality 6

SNR 1236.3  
 Int time 179.984  
 Amp 33.705  
 Phase 314.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.011618  
 MBD -0.004182  
 Fringe rate (Hz)  
 -0.020268  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151745  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0	PC freqs	
I	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
I	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-7.64659903186E+03	Apriori delay (usec)	-7.64661047493E+03	Resid mbdelay (usec)	-4.18193E-03	+/-	8.8E-07
Sband delay (usec)	-7.64659885643E+03	Apriori clock (usec)	-2.0991233E+03	Resid sbdelay (usec)	1.16185E-02	+/-	7.0E-06
Phase delay (usec)	-7.64661046771E+03	Apriori clockrate (us/s)	2.2316914E-07	Resid phdelay (usec)	7.22360E-06	+/-	6.0E-09
Delay rate (us/s)	-5.07240617110E-01	Apriori rate (us/s)	-5.07240147290E-01	Resid rate (us/s)	-4.69821E-07	+/-	5.7E-11
Total phase (deg)	-5.2	Apriori accel (us/s/s)	-3.69698151780E-05	Resid phase (deg)	314.7	+/-	0.1

ph/seg (deg)	RMS 7.9	Theor. 0.2	Amplitude Search (1024X32)	33.705 +/- 0.027	32.043	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	3.3	0.4	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	39.3	0.1	Inc. seg. avg.	34.020	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	24.8	0.2	Inc. frq. avg.	39.683	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	Data rate(Mb/s): 2048	dr window (ns/s)	-0.023 0.023
					nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6 I: az 71.2 el 46.9 pa -74.8 u,v (fr/asec) 1804.425 -4555.055 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AI..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AI.Q.61.3MP56K

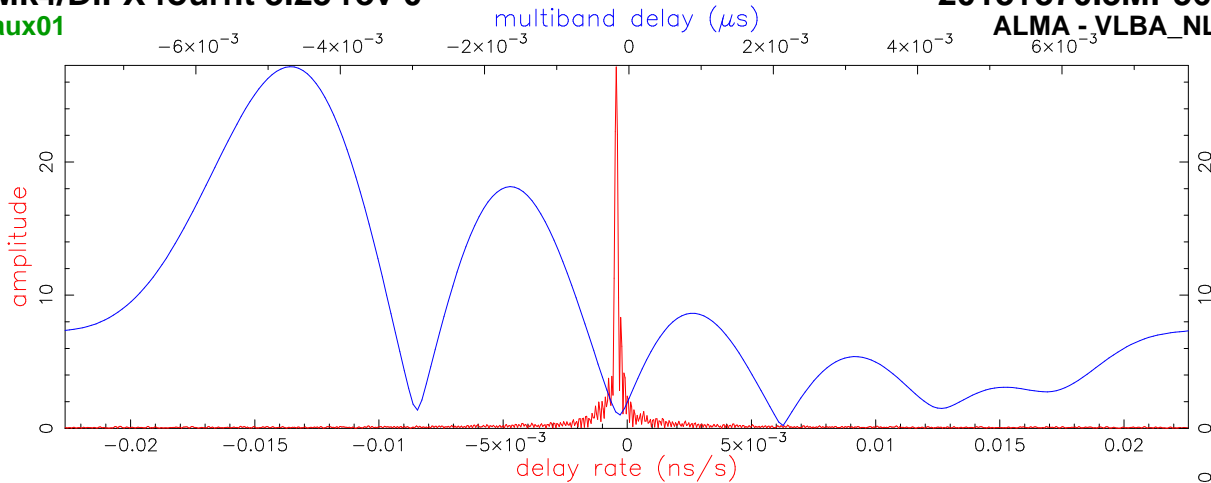


Mk4/DiFX fourfit 3.25 rev 0

aux01

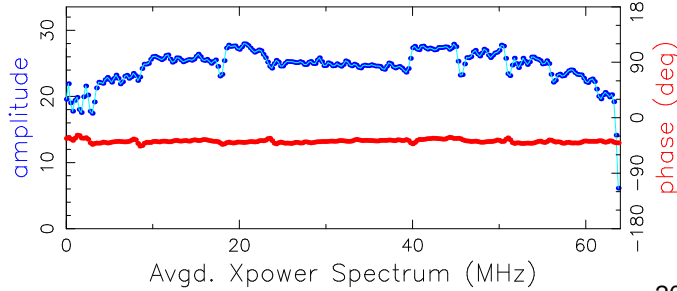
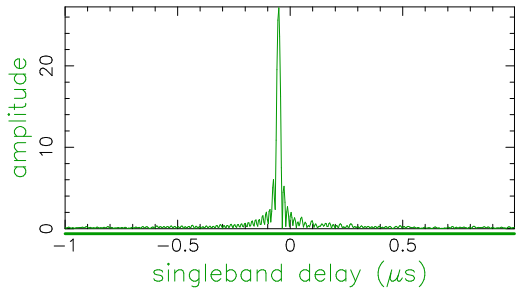
2013+370.3MP56K, No0500, An

ALMA - VLBA\_NL, fgroup Q, pol XL



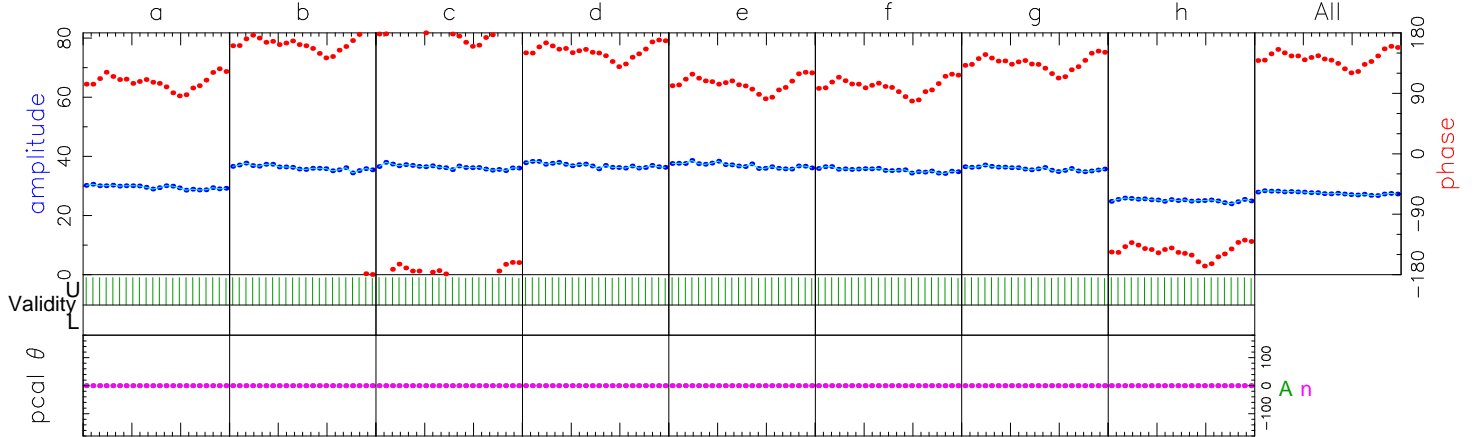
Fringe quality 6

SNR 998.8  
 Int time 179.674  
 Amp 27.254  
 Phase -105.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.051580  
 MBD -0.004725  
 Fringe rate (Hz)  
 -0.019157  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151739  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	107.0	164.1	-178.1	152.6	104.5	100.7	135.0	-144.7	Phase	142.2
	29.1	35.6	35.8	36.4	36.3	34.8	35.3	24.8	Ampl.	33.5
	245.3	243.5	243.7	243.7	243.9	243.8	243.8	245.9	Sbd box	243.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.03982245031E+04	Apriori delay (usec)	-1.03981729032E+04	Resid mbdelay (usec)	-4.72487E-03	+/-	1.1E-06
Sband delay (usec)	-1.03982244827E+04	Apriori clock (usec)	-2.1071355E+03	Resid sbdelay (usec)	-5.15795E-02	+/-	8.6E-06
Phase delay (usec)	-1.03981728941E+04	Apriori clockrate (us/s)	-3.0809188E-07	Resid phdelay (usec)	9.15442E-06	+/-	7.4E-09
Delay rate (us/s)	-2.80148748929E-01	Apriori rate (us/s)	-2.80148304858E-01	Resid rate (us/s)	-4.44071E-07	+/-	7.1E-11
Total phase (deg)	-121.4	Apriori accel (us/s/s)	-2.79396757458E-05	Resid phase (deg)	-105.3	+/-	0.1

ph/seg (deg)	10.4	RMS	10.4	Theor.	0.3	Amplitude	27.254 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	2.1		0.5			Search (1024X32)	26.531	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.6		0.2			Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	27.2		0.3			Inc. seg. avg.	27.593	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	33.505	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 989.079 -4567.162 simultaneous interpolator

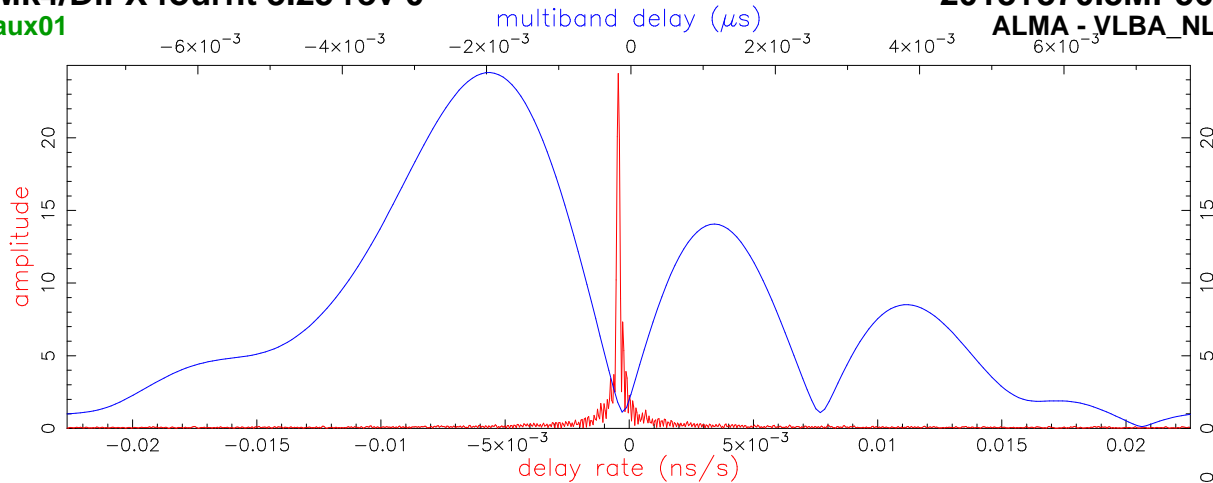
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//An...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//An.Q.29.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

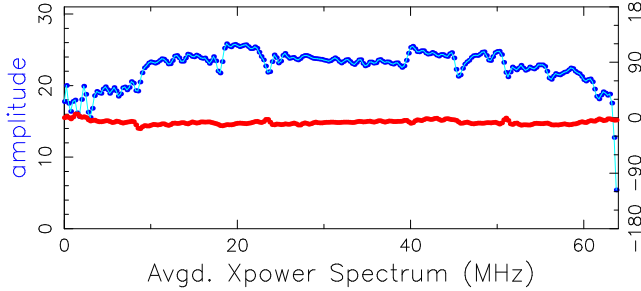
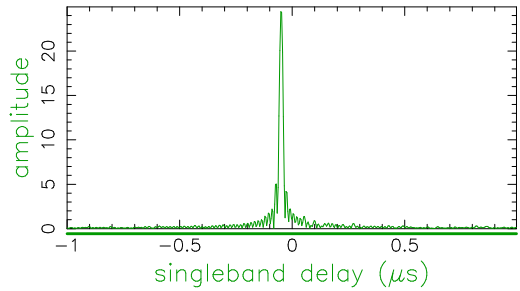
2013+370.3MP56K, No0500, An

ALMA - VLBA\_NL, fgroup Q, pol YR



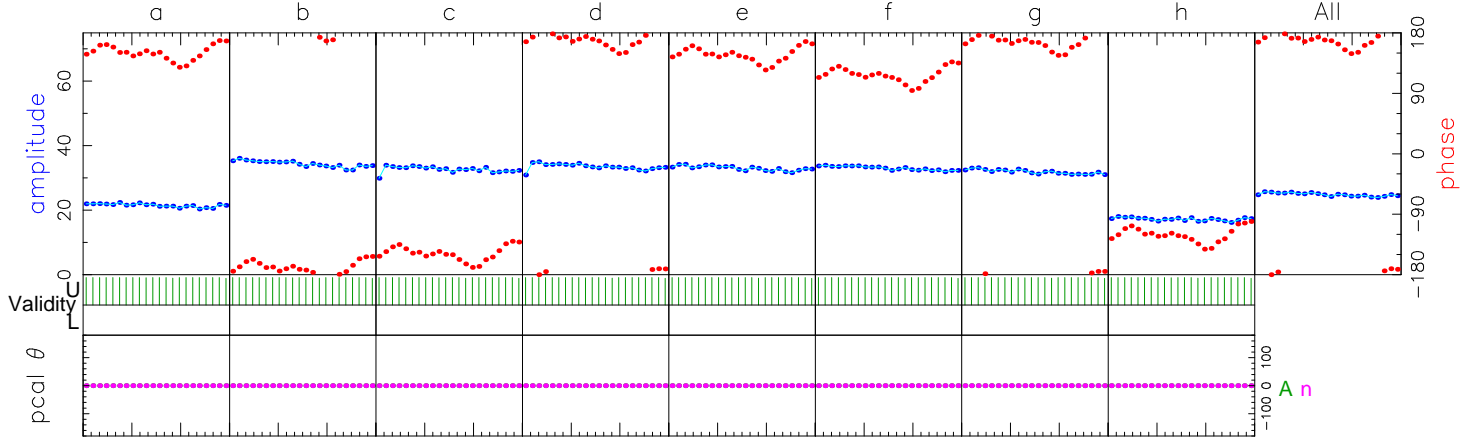
Fringe quality 6

SNR 915.7  
 Int time 179.674  
 Amp 24.986  
 Phase -76.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.048896  
 MBD -0.001882  
 Fringe rate (Hz)  
 -0.019183  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151741  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Group delay (usec) (SBD)	-1.03982216600E+04									
Sband delay (usec)	-1.03982217987E+04									
Phase delay (usec)	-1.03981728922E+04									
Delay rate (us/s)	-2.80148749526E-01									
Total phase (deg)			-92.7							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
simultaneous interpolator										

ph/seg (deg) 10.7 0.3  
 amp/seg (%) 2.1 0.5  
 ph/frq (deg) 42.0 0.2  
 amp/frq (%) 29.1 0.3

Group delay (usec) (SBD) -1.03982216600E+04  
 Sband delay (usec) -1.03982217987E+04  
 Phase delay (usec) -1.03981728922E+04  
 Delay rate (us/s) -2.80148749526E-01  
 Total phase (deg) -92.7

Apriori delay (usec) -1.03981729032E+04  
 Apriori clock (usec) -2.1071355E+03  
 Apriori clockrate (us/s) -3.0809188E-07  
 Apriori rate (us/s) -2.80148304858E-01  
 Apriori accel (us/s/s) -2.79396757458E-05

Resid mbdelay (usec) -1.88174E-03  
 Resid sbdelay (usec) -4.88955E-02  
 Resid phdelay (usec) 1.10020E-05  
 Resid rate (us/s) -4.44668E-07  
 Resid phase (deg) -76.6

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)  
 Bits/sample: 2x2 SampCntNorm: enabled  
 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) -0.023 0.023  
 ion window (TEC) 0.00 0.00

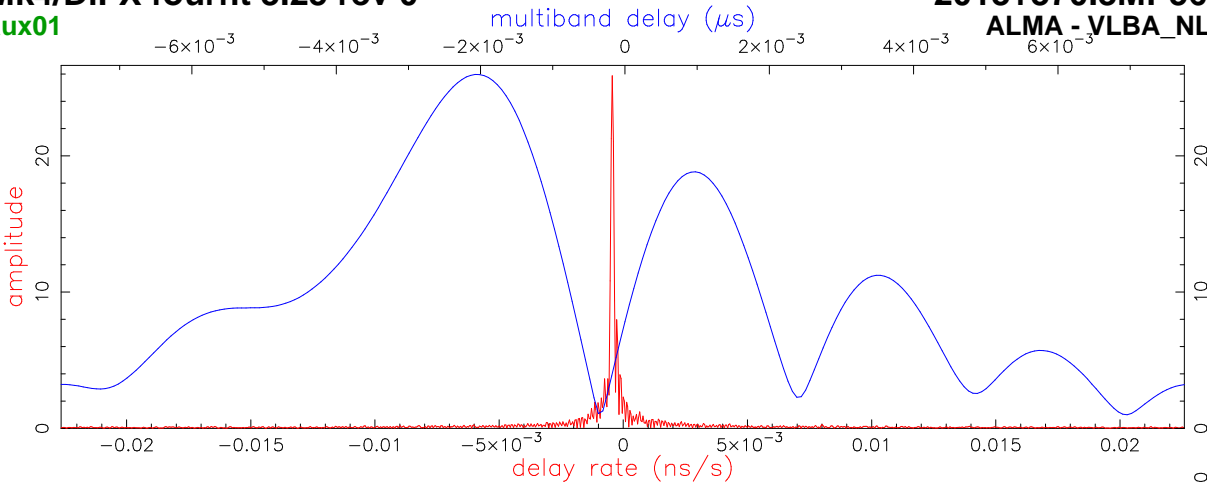
A: az 14.3 el 27.9 pa -163.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 989.079 -4567.162  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//An..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//An.Q.44.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

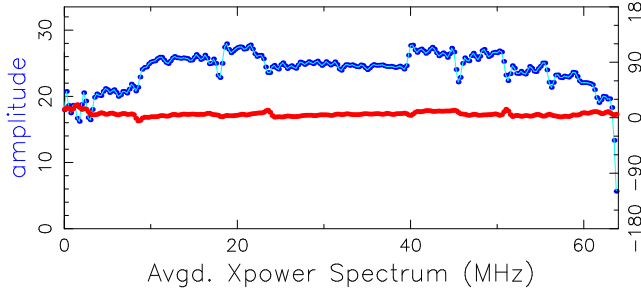
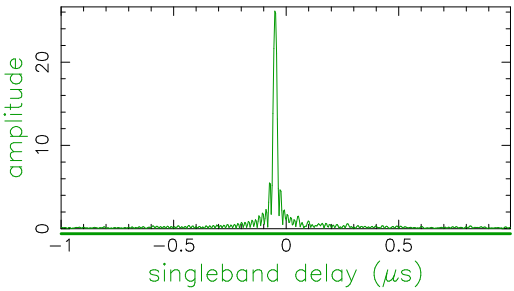
2013+370.3MP56K, No0500, An

ALMA - VLBA\_NL, fgroup Q, pol XR



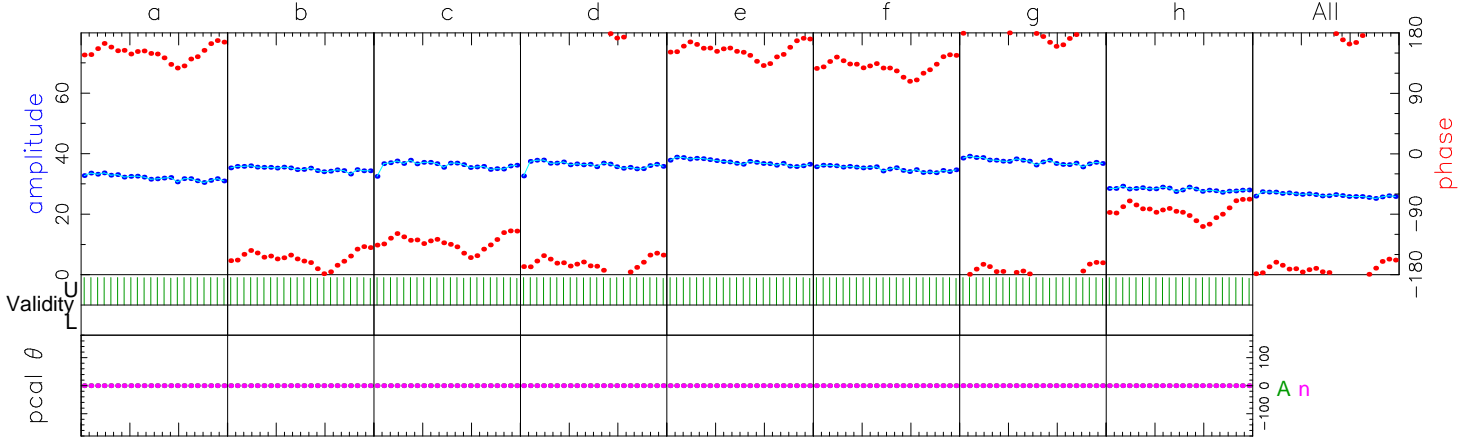
Fringe quality 6

SNR 976.3  
 Int time 179.674  
 Amp 26.638  
 Phase -61.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.049027  
 MBD -0.002155  
 Fringe rate (Hz)  
 -0.019139  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151743  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
n	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-1.03982219328E+04	Apriori delay (usec)	-1.03981729032E+04	Resid mbdelay (usec)	-2.15455E-03	+/-	1.1E-06
Sband delay (usec)	-1.03982219307E+04	Apriori clock (usec)	-2.1071355E+03	Resid sbdelay (usec)	-4.90275E-02	+/-	8.8E-06
Phase delay (usec)	-1.03981729144E+04	Apriori clockrate (us/s)	-3.0809188E-07	Resid phdelay (usec)	-1.12202E-05	+/-	7.6E-09
Delay rate (us/s)	-2.80148748502E-01	Apriori rate (us/s)	-2.80148304858E-01	Resid rate (us/s)	-4.43644E-07	+/-	7.3E-11
Total phase (deg)	-77.8	Apriori accel (us/s/s)	-2.79396757458E-05	Resid phase (deg)	-61.8	+/-	0.1

ph/seg (deg)	RMS 10.6	Theor. 0.3	Amplitude 26.638 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	2.6	0.5	Search (1024X32) 25.828	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	51.1	0.2	Inc. seg. avg. 26.325	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	29.9	0.3	Inc. frq. avg. 34.075	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023	
				Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC) 0.00 0.00

A: az 14.3 el 27.9 pa -163.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 989.079 -4567.162 simultaneous interpolator

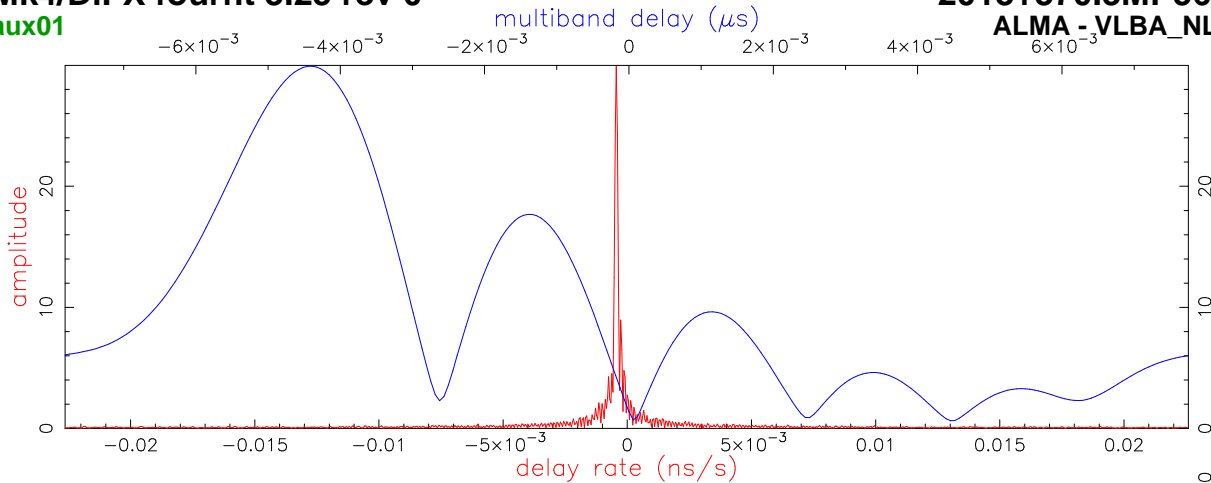
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//An...3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//An.Q.48.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

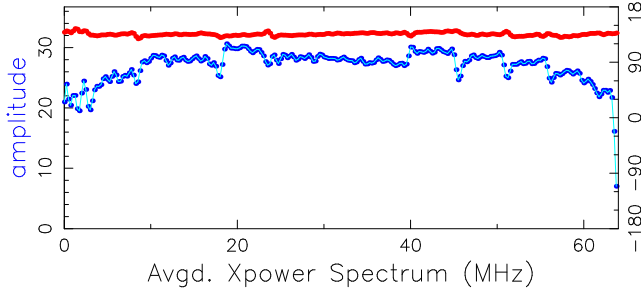
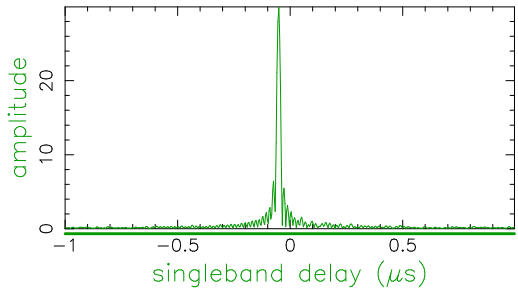
2013+370.3MP56K, No0500, An

ALMA - VLBA\_NL, fgroup Q, pol YL



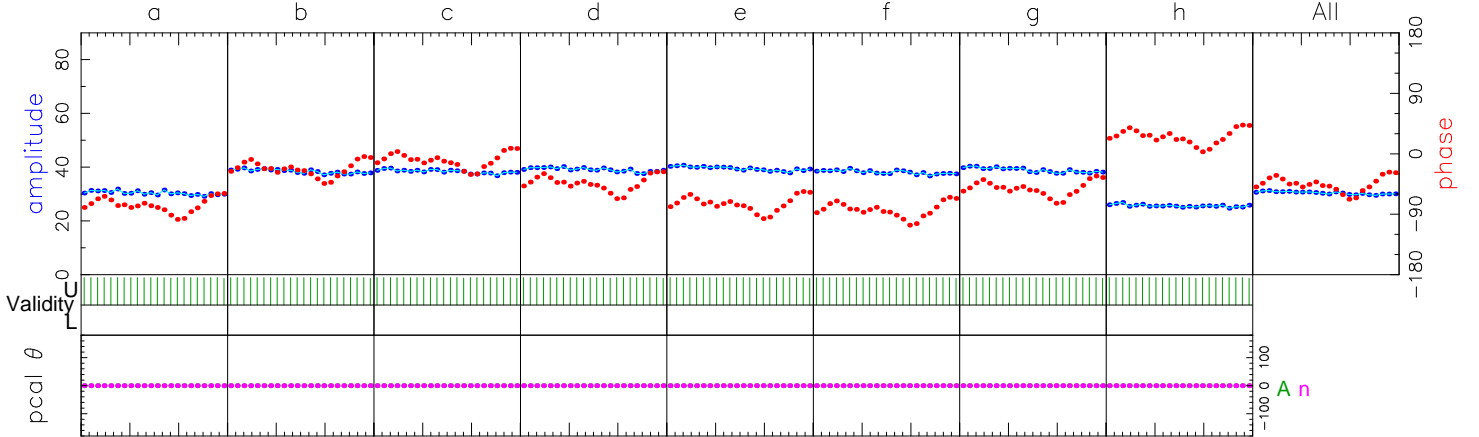
Fringe quality 6

SNR 1099.1  
 Int time 179.674  
 Amp 29.990  
 Phase -292.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.051397  
 MBD -0.004442  
 Fringe rate (Hz)  
 -0.019197  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151747  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-76.4	-22.4	-9.5	-43.8	-74.2	-83.4	-51.6	25.4	Phase	-45.3
	29.9	37.8	37.8	38.4	38.8	37.5	38.3	25.2	Ampl.	35.5
	245.5	243.5	243.7	243.7	243.9	243.8	243.8	246.1	Sbd box	243.8
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
n	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-1.03982242201E+04	Apriori delay (usec)	-1.03981729032E+04	Resid mbdelay (usec)	-4.44187E-03	+/-	9.9E-07
Sband delay (usec)	-1.03982243005E+04	Apriori clock (usec)	-2.1071355E+03	Resid sbdelay (usec)	-5.13972E-02	+/-	7.8E-06
Phase delay (usec)	-1.03981729061E+04	Apriori clockrate (us/s)	-3.0809188E-07	Resid phdelay (usec)	-2.91654E-06	+/-	6.7E-09
Delay rate (us/s)	-2.80148749849E-01	Apriori rate (us/s)	-2.80148304858E-01	Resid rate (us/s)	-4.44991E-07	+/-	6.5E-11
Total phase (deg)	-308.8	Apriori accel (us/s/s)	-2.79396757458E-05	Resid phase (deg)	-292.8	+/-	0.1

ph/seg (deg)	10.7	0.2	Search (1024X32)	29.765	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	2.3	0.4	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)	41.0	0.1	Inc. seg. avg.	30.444	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	24.1	0.3	Inc. frq. avg.	35.466	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6 n: az 85.1 el 59.3 pa -68.9 u,v (fr/asec) 989.079 -4567.162 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//An..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//An.Q.75.3MP56K

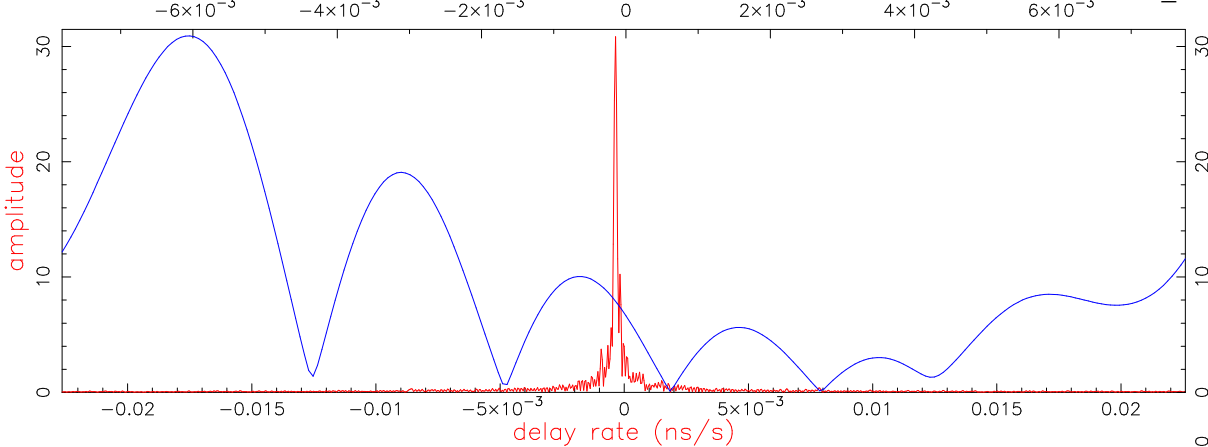
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ao

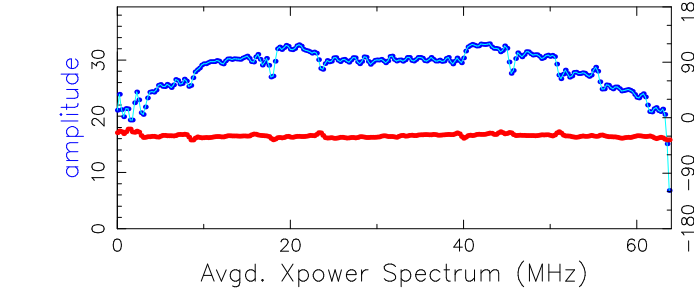
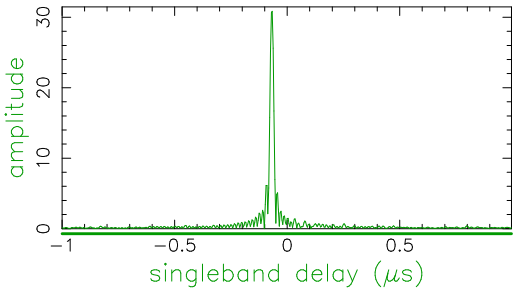
ALMA - VLBA\_OV, fgroup Q, pol XL

multiband delay ( $\mu$ s)



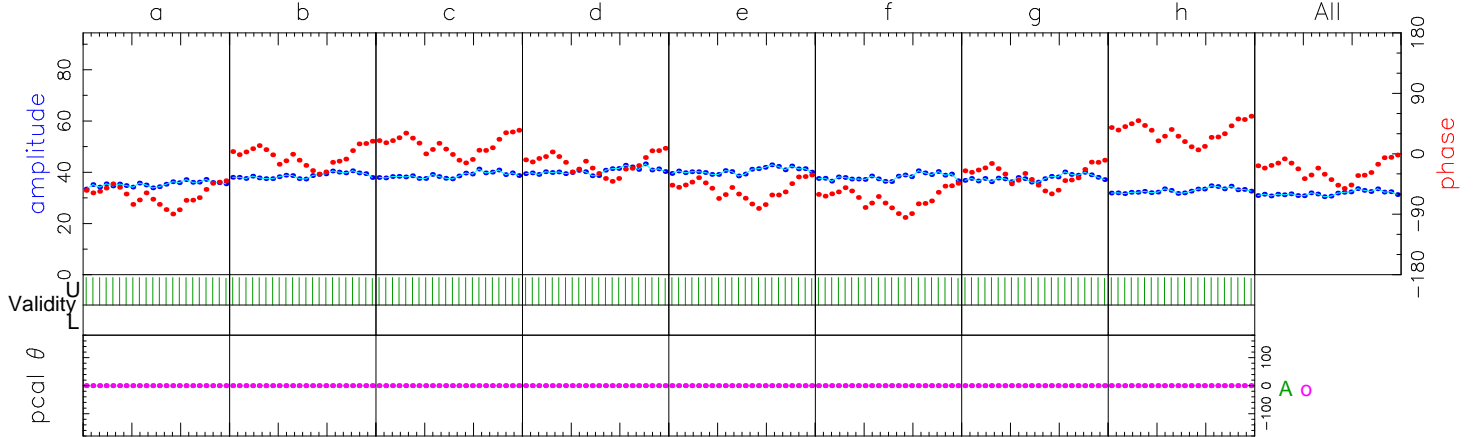
Fringe quality 6

SNR 1154.6  
 Int time 179.987  
 Amp 31.475  
 Phase -114.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.068229  
 MBD -0.006139  
 Fringe rate (Hz)  
 -0.015335  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151737  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-61.7	-3.9	13.0	-14.7	-53.4	-66.8	-32.0	32.6	Phase	-24.5
	34.4	37.6	37.7	39.3	39.4	37.0	36.6	31.9	Ampl.	36.7
	241.0	239.2	239.3	239.4	239.5	239.3	239.3	241.0	Sbd box	239.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
o	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-5.33859580003E+03	Apriori delay (usec)	-5.33852716076E+03	Resid mbdelay (usec)	-6.13927E-03	+/-	9.4E-07
Sband delay (usec)	-5.33859538976E+03	Apriori clock (usec)	-2.1324758E+03	Resid sbdelay (usec)	-6.82290E-02	+/-	7.5E-06
Phase delay (usec)	-5.33852716234E+03	Apriori clockrate (us/s)	-4.9210397E-07	Resid phdelay (usec)	-1.57634E-06	+/-	6.4E-09
Delay rate (us/s)	-5.95145416599E-01	Apriori rate (us/s)	-5.95145061123E-01	Resid rate (us/s)	-3.55475E-07	+/-	6.1E-11
Total phase (deg)	-11.9	Apriori accel (us/s/s)	-5.08105994371E-05	Resid phase (deg)	-114.5	+/-	0.1

ph/seg (deg)	13.8	RMS	13.8	Theor.	0.2	Amplitude	31.475 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	2.9		0.4			Search (1024X32)	30.435	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	39.3		0.1			Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	18.4		0.2			Inc. seg. avg.	31.768	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	36.744	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6      o: az 68.4 el 38.3 pa -68.5      u,v (fr/asec) 2115.489 -5042.973      simultaneous interpolator

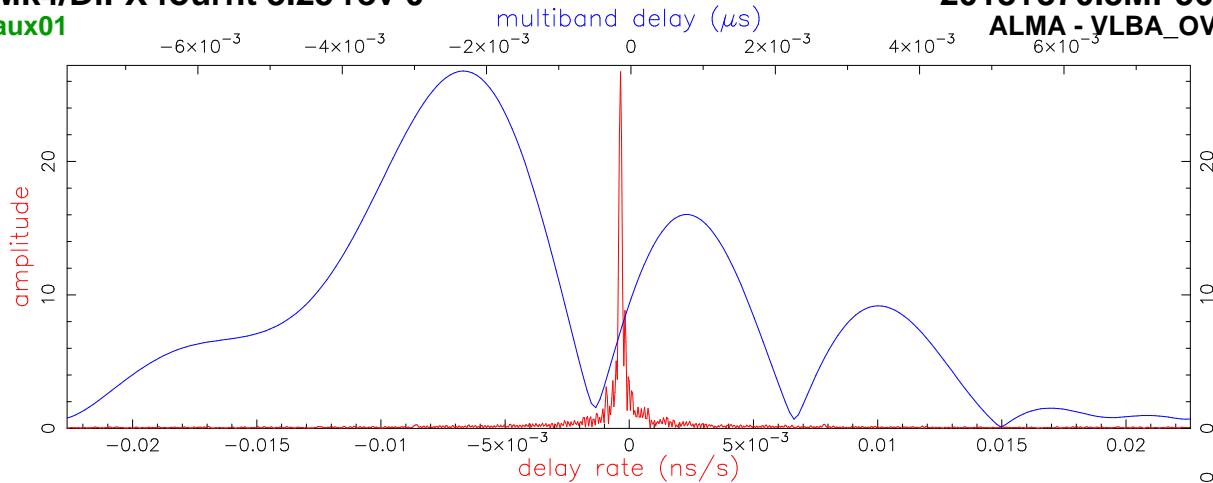
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//Ao..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//Ao.Q.19.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

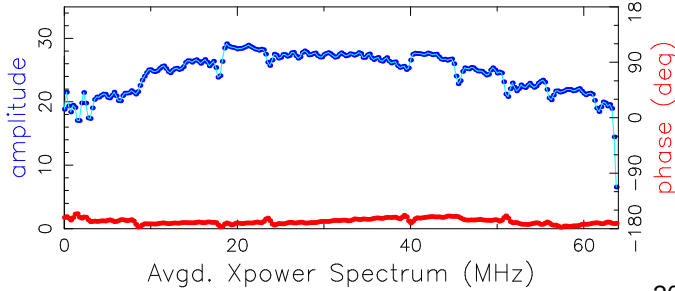
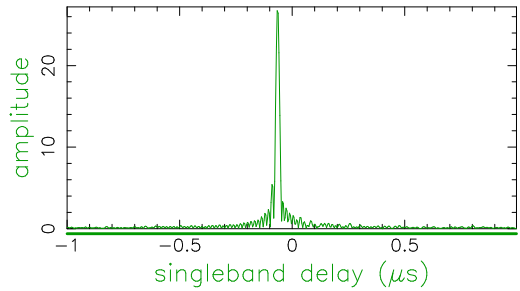
2013+370.3MP56K, No0500, Ao

ALMA - VLBA\_OV, fgroup Q, pol YR



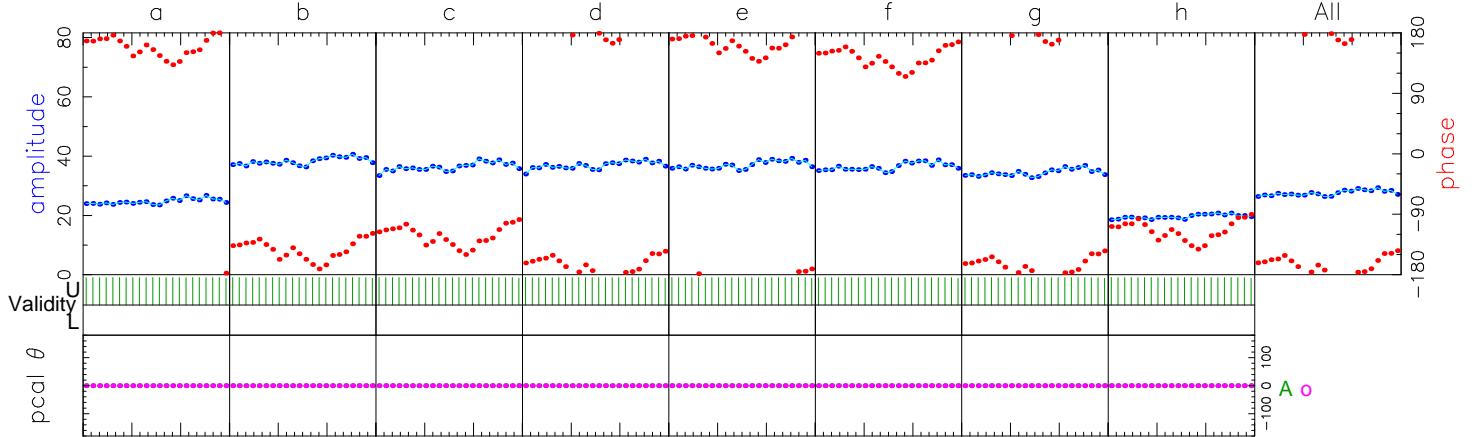
Fringe quality 5

SNR 997.9  
 Int time 179.987  
 Amp 27.202  
 Phase -257.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.064699  
 MBD -0.002241  
 Fringe rate (Hz)  
 -0.015357  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151739  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		
o	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD) -5.33859190207E+03 Apriori delay (usec) -5.33852716076E+03 Resid mbdelay (usec) -2.24131E-03 +/- 1.1E-06  
 Sband delay (usec) -5.33859186001E+03 Apriori clock (usec) -2.1324758E+03 Resid sbdelay (usec) -6.46992E-02 +/- 8.6E-06  
 Phase delay (usec) -5.33852717157E+03 Apriori clockrate (us/s) -4.9210397E-07 Resid phdelay (usec) -1.08110E-05 +/- 7.4E-09  
 Delay rate (us/s) -5.95145417114E-01 Apriori rate (us/s) -5.95145061123E-01 Resid rate (us/s) -3.55990E-07 +/- 7.1E-11  
 Total phase (deg) -155.4 Apriori accel (us/s/s) -5.08105994371E-05 Resid phase (deg) -257.9 +/- 0.1

RMS Theor. Amplitude 27.202 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 ph/seg (deg) 14.3 0.3 Search (1024X32) 26.476 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 amp/seg (%) 3.5 0.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 ph/frq (deg) 40.5 0.2 Inc. seg. avg. 27.583 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 29.0 0.3 Inc. frq. avg. 31.990 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00

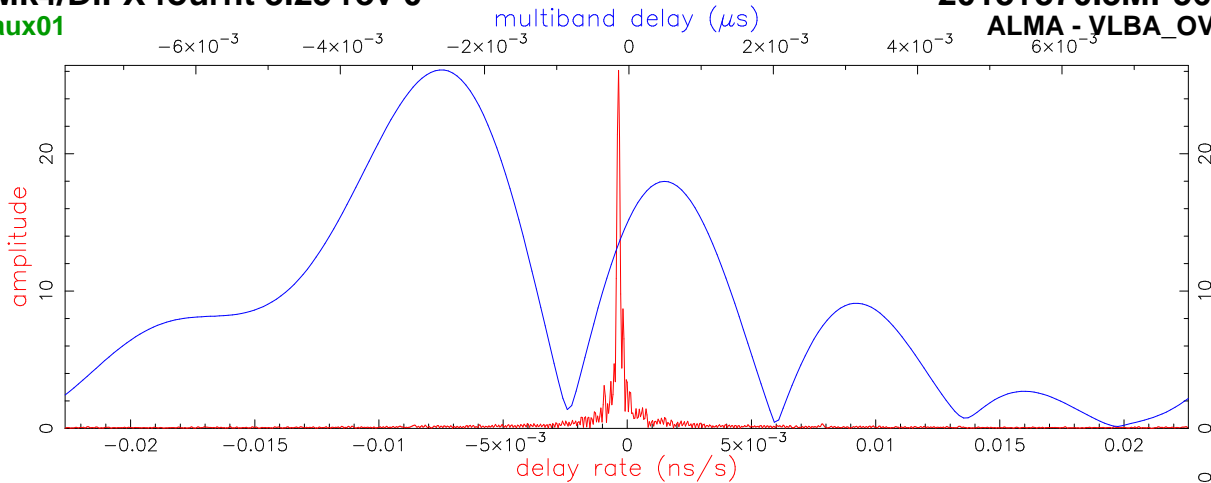
A: az 14.3 el 27.9 pa -163.6 o: az 68.4 el 38.3 pa -68.5 u,v (fr/asec) 2115.489 -5042.973 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ao..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ao.Q.28.3MP56K

# Mk4/DiFX fourfit 3.25 rev 0

aux01

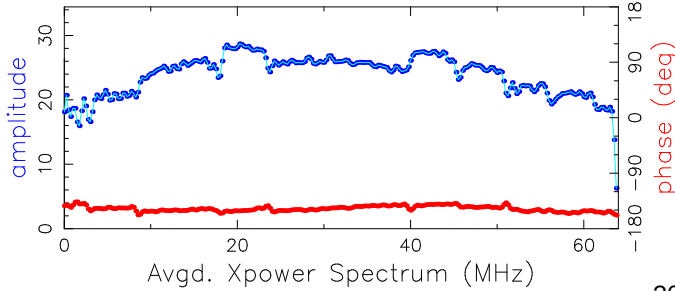
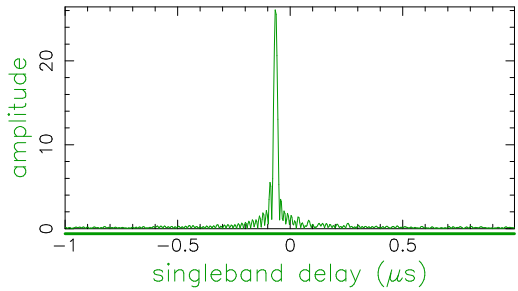
2013+370.3MP56K, No0500, Ao

ALMA - VLBA\_OV, fgroup Q, pol XR



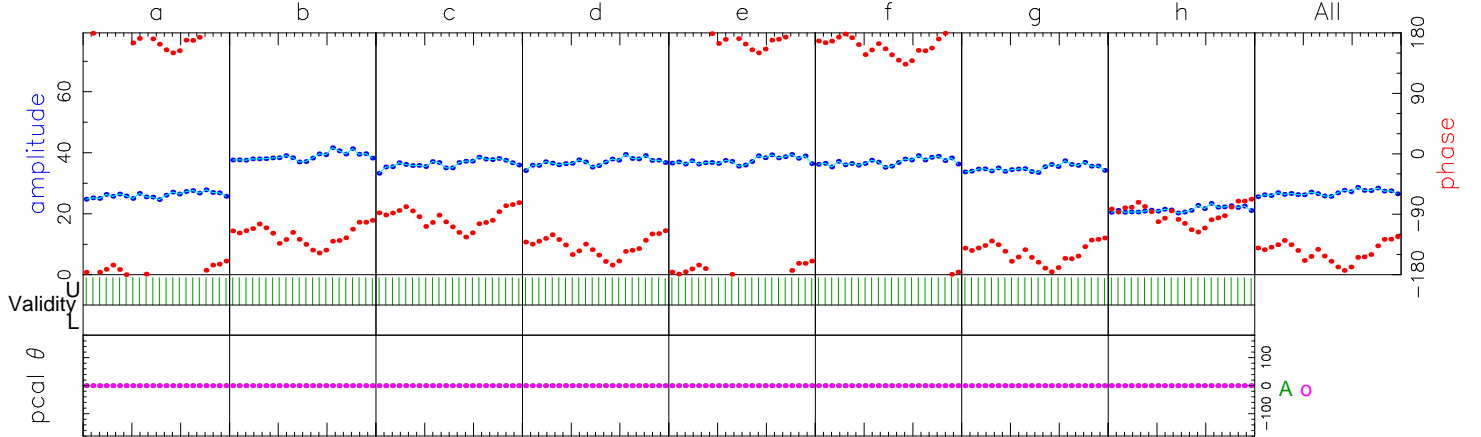
Fringe quality 5

SNR 969.8  
 Int time 179.987  
 Amp 26.438  
 Phase -236.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.064894  
 MBD -0.002532  
 Fringe rate (Hz)  
 -0.015313  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151741  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
o	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-5.33859219228E+03	Apriori delay (usec)	-5.33852716076E+03	Resid mbdelay (usec)	-2.53152E-03	+/-	1.1E-06
Sband delay (usec)	-5.33859205476E+03	Apriori clock (usec)	-2.1324758E+03	Resid sbdelay (usec)	-6.48940E-02	+/-	8.9E-06
Phase delay (usec)	-5.33852717017E+03	Apriori clockrate (us/s)	-4.9210397E-07	Resid phdelay (usec)	-9.40805E-06	+/-	7.6E-09
Delay rate (us/s)	-5.95145416095E-01	Apriori rate (us/s)	-5.95145061123E-01	Resid rate (us/s)	-3.54972E-07	+/-	7.3E-11
Total phase (deg)	-133.6	Apriori accel (us/s/s)	-5.08105994371E-05	Resid phase (deg)	-236.1	+/-	0.1

ph/seg (deg)	13.9	0.3	Search (1024X32)	25.864	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	3.5	0.5	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)	44.7	0.2	Inc. seg. avg.	26.865	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	32.0	0.3	Inc. frq. avg.	32.654	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6      o: az 68.4 el 38.3 pa -68.5      u,v (fr/asec) 2115.489 -5042.973      simultaneous interpolator

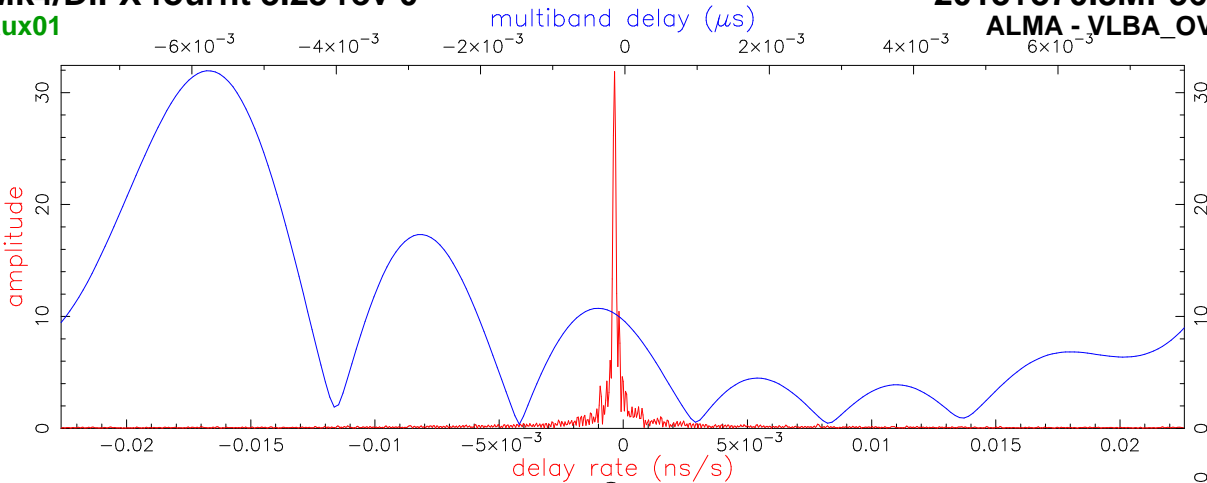
Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//Ao..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//Ao.Q.42.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

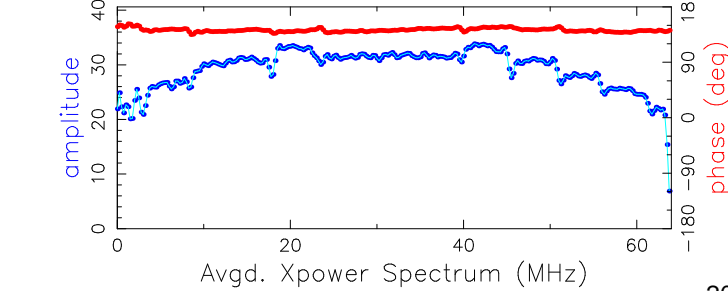
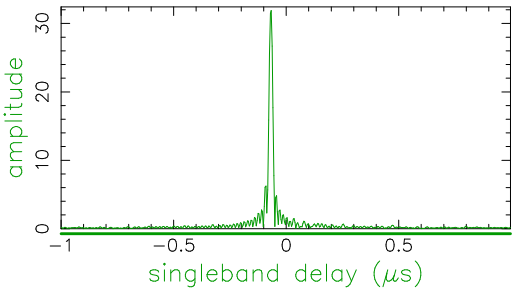
2013+370.3MP56K, No0500, Ao

ALMA - VLBA\_OV, fgroup Q, pol YL



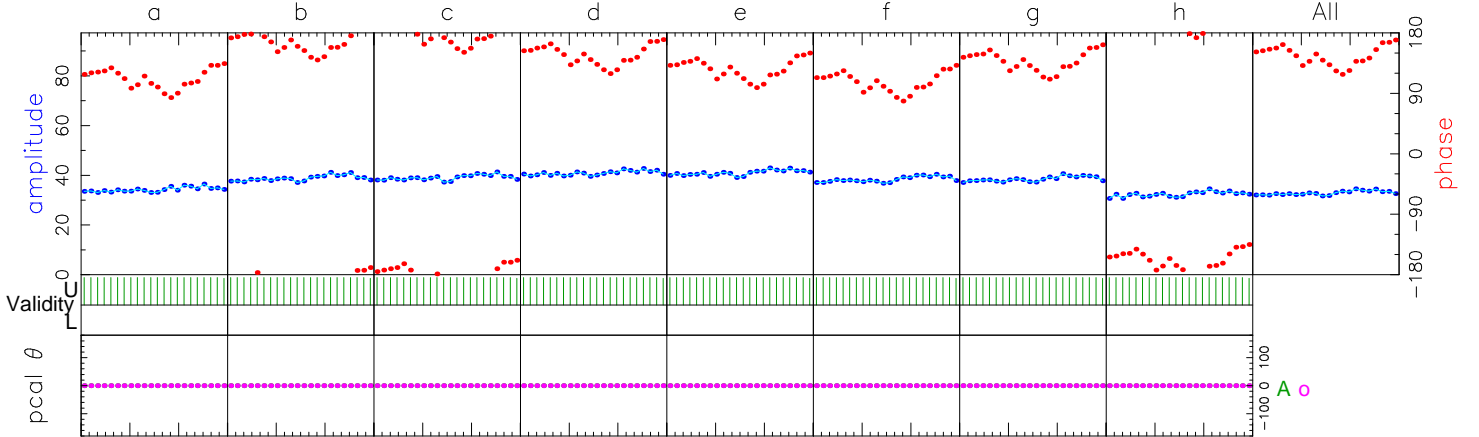
Fringe quality 6

SNR 1189.8  
 Int time 179.987  
 Amp 32.435  
 Phase -304.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.068076  
 MBD -0.005847  
 Fringe rate (Hz)  
 -0.015378  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151744  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		
o	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		
									PC freqs	
									PC phase	
									ManI PC	
									PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec) (SBD)	-5.33859550735E+03	Apriori delay (usec)	-5.33852716076E+03	Resid mbdelay (usec)	-5.84659E-03	+/-	9.1E-07
Sband delay (usec)	-5.33859523676E+03	Apriori clock (usec)	-2.1324758E+03	Resid sbdelay (usec)	-6.80760E-02	+/-	7.2E-06
Phase delay (usec)	-5.33852715137E+03	Apriori clockrate (us/s)	-4.9210397E-07	Resid phdelay (usec)	9.38703E-06	+/-	6.2E-09
Delay rate (us/s)	-5.95145417586E-01	Apriori rate (us/s)	-5.95145061123E-01	Resid rate (us/s)	-3.56463E-07	+/-	6.0E-11
Total phase (deg)	-201.7	Apriori accel (us/s/s)	-5.08105994371E-05	Resid phase (deg)	-304.2	+/-	0.1

ph/seg (deg)	14.3	RMS	14.3	Theor.	0.2	Amplitude	32.435 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	2.9	Search (1024X32)	31.646	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	35.9	Inc. seg. avg.	32.908	Inc. frq. avg.	36.739	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	15.8	Inc. frq. avg.	36.739	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6      o: az 68.4 el 38.3 pa -68.5      u,v (fr/asec) 2115.489 -5042.973      simultaneous interpolator  
 Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500//Ao..3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500//Ao.Q.51.3MP56K



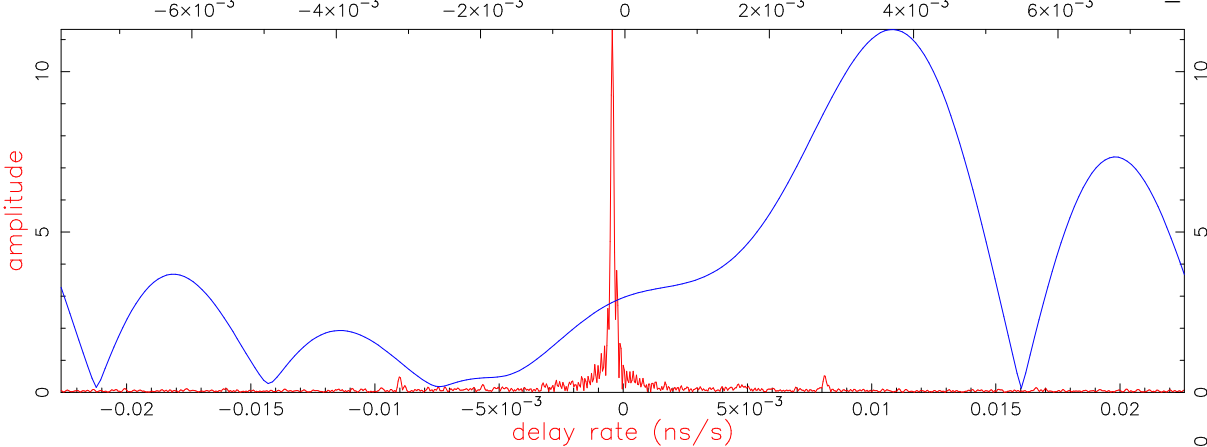
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, Ap

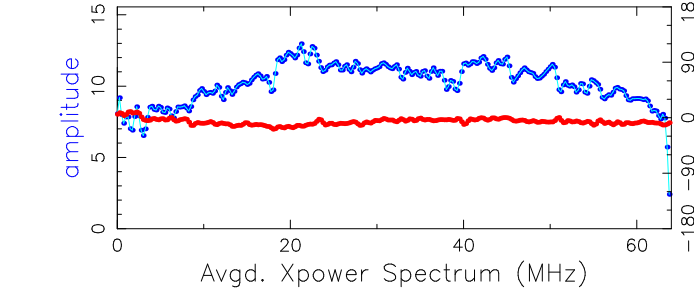
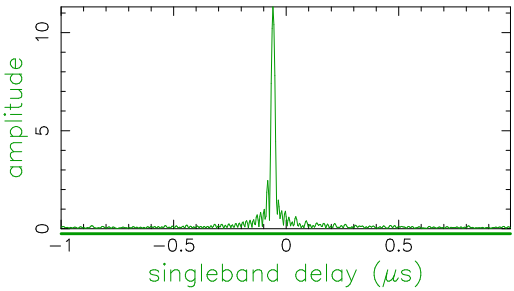
ALMA - VLBA\_PT, fgroup Q, pol XL

multiband delay ( $\mu$ s)



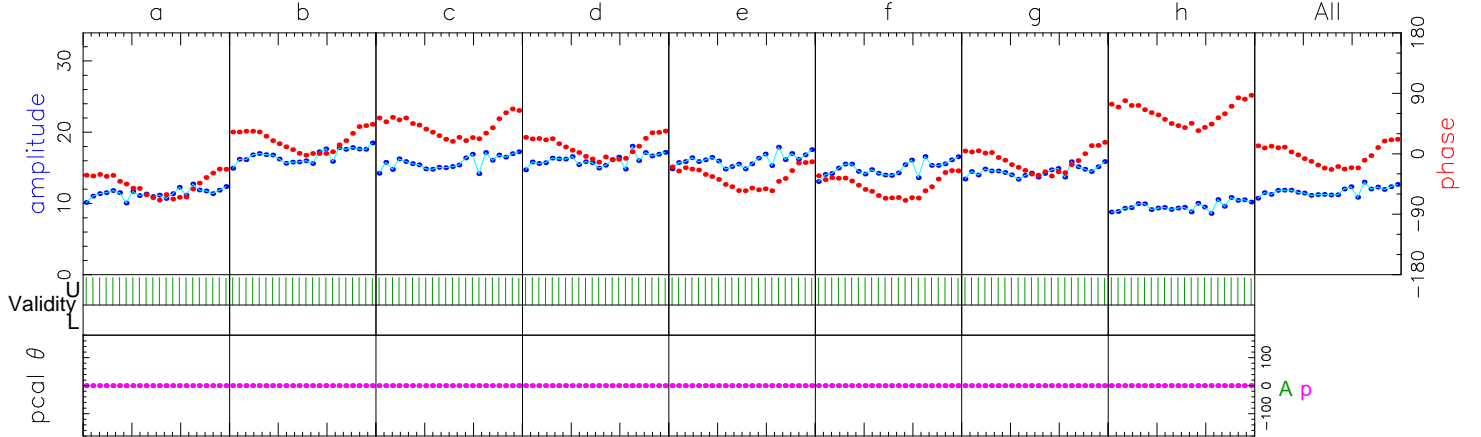
Fringe quality 5

SNR 415.2  
 Int time 179.975  
 Amp 11.320  
 Phase -92.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.058415  
 MBD 0.003715  
 Fringe rate (Hz)  
 -0.018503  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151739  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-45.7	20.0	40.6	10.5	-34.8	-47.7	-9.9	60.6	Phase	-2.2
	11.0	16.1	15.2	15.6	15.5	14.4	13.9	9.3	Ampl.	13.9
	244.0	242.1	241.8	241.9	241.9	241.9	241.9	244.0	Sbd box	242.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-7.16263164806E+03	Apriori delay (usec)	-7.16257286266E+03	Resid mbdelay (usec)	3.71460E-03	+/-	2.6E-06
Sband delay (usec)	-7.16263127816E+03	Apriori clock (usec)	-2.1131233E+03	Resid sbdelay (usec)	-5.84155E-02	+/-	2.1E-05
Phase delay (usec)	-7.16257286280E+03	Apriori clockrate (us/s)	-3.8952890E-07	Resid phdelay (usec)	-1.44019E-07	+/-	1.8E-08
Delay rate (us/s)	-5.41188227700E-01	Apriori rate (us/s)	-5.41187798793E-01	Resid rate (us/s)	-4.28907E-07	+/-	1.7E-10
Total phase (deg)	-198.5	Apriori accel (us/s/s)	-3.81825044485E-05	Resid phase (deg)	-92.2	+/-	0.3

ph/seg (deg)	15.1	0.6	Search (1024X32)	10.973	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	6.2	1.1	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)	43.8	0.4	Inc. seg. avg.	11.724	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	30.5	0.7	Inc. frq. avg.	13.889	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1926.439 -4517.870 simultaneous interpolator

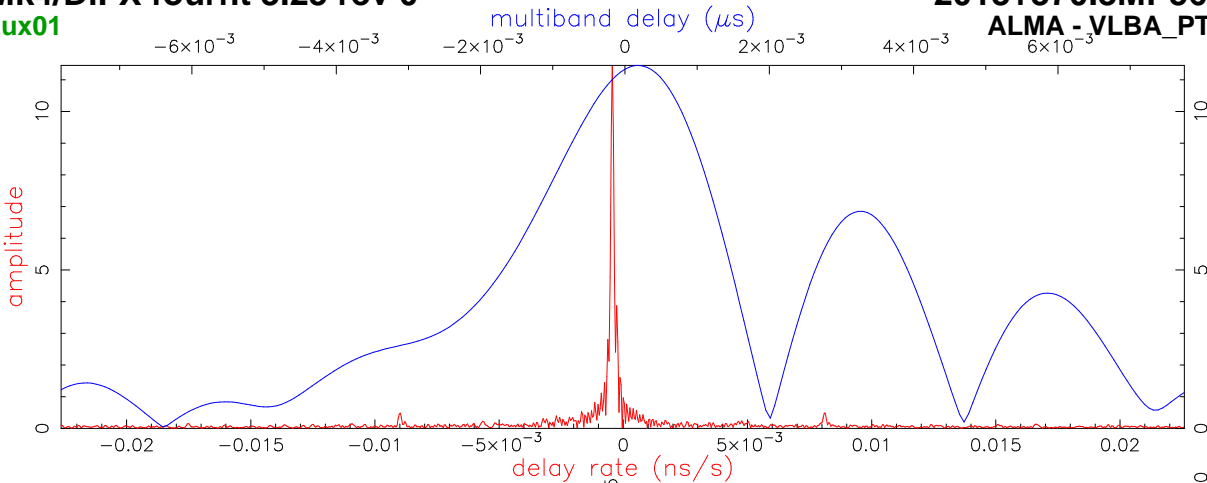
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ap..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ap.Q.25.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

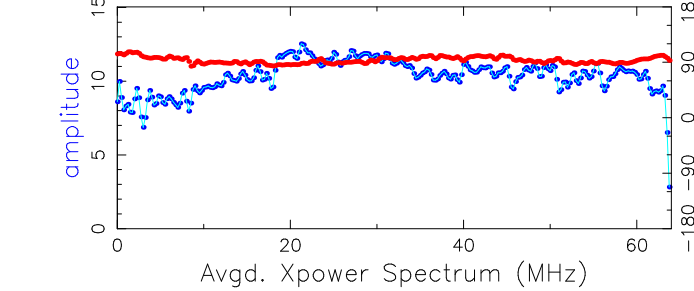
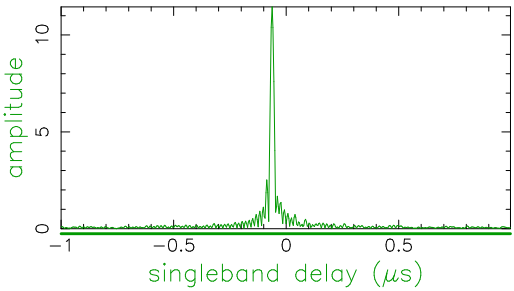
2013+370.3MP56K, No0500, Ap

ALMA - VLBA\_PT, fgroup Q, pol YR



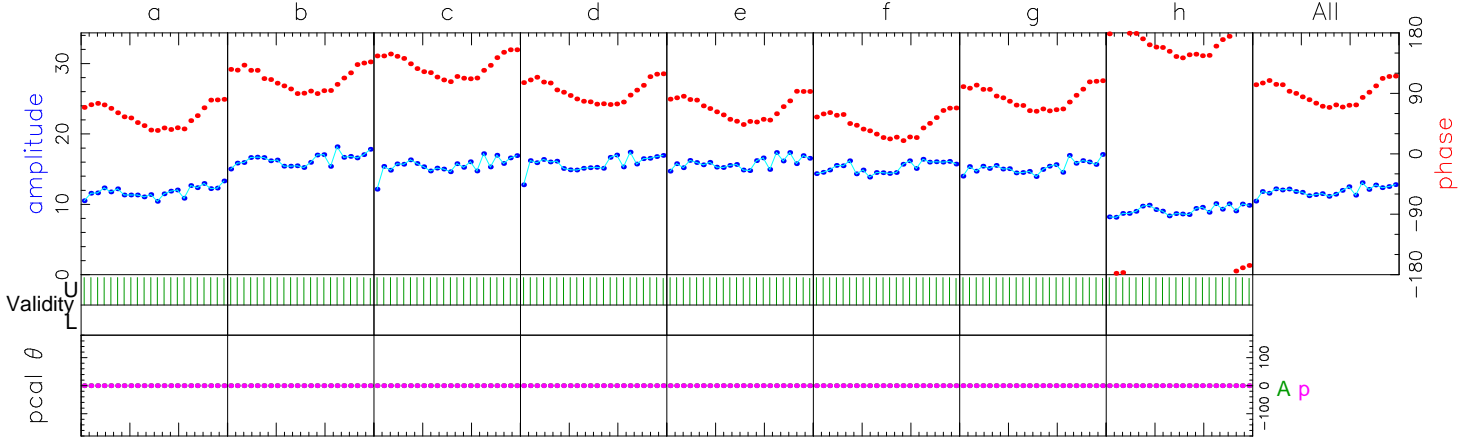
Fringe quality 5

SNR 420.2  
 Int time 179.975  
 Amp 11.455  
 Phase -359.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.062526  
 MBD 0.000182  
 Fringe rate (Hz)  
 -0.018523  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151741  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		

Group delay (usec) (SBD)	-7.16263518099E+03	Apriori delay (usec)	-7.16257286266E+03	Resid mbdelay (usec)	1.81665E-04	+/-	2.6E-06
Sband delay (usec)	-7.16263538816E+03	Apriori clock (usec)	-2.1131233E+03	Resid sbdelay (usec)	-6.25255E-02	+/-	2.1E-05
Phase delay (usec)	-7.16257285681E+03	Apriori clockrate (us/s)	-3.8952890E-07	Resid phdelay (usec)	5.84849E-06	+/-	1.8E-08
Delay rate (us/s)	-5.41188228172E-01	Apriori rate (us/s)	-5.41187798793E-01	Resid rate (us/s)	-4.29380E-07	+/-	1.7E-10
Total phase (deg)	-105.4	Apriori accel (us/s/s)	-3.81825044485E-05	Resid phase (deg)	-359.2	+/-	0.3

ph/seg (deg)	15.8	Theor.	0.6	Amplitude	11.455 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	6.7		1.1	Search (1024X32)	11.052	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.0		0.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	28.7		0.7	Inc. seg. avg.	11.906	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
				Inc. frq. avg.	13.816	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

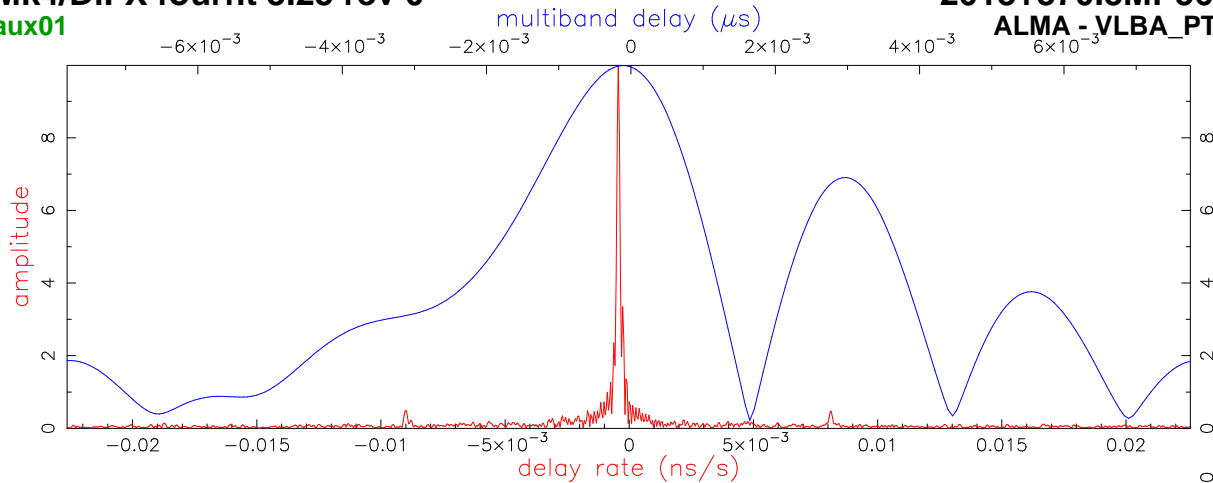
A: az 14.3 el 27.9 pa -163.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1926.439 -4517.870 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ap..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ap.Q.39.3MP56K

# Mk4/DiFX fourfit 3.25 rev 0

aux01

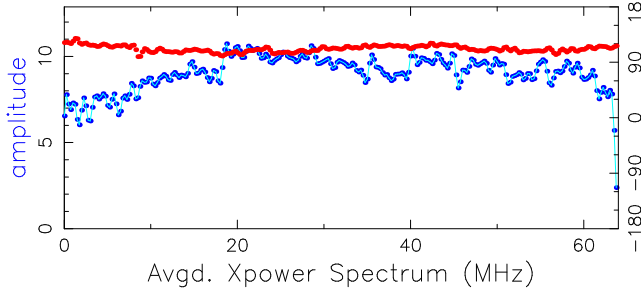
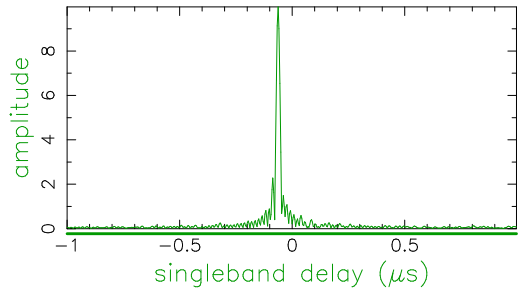
2013+370.3MP56K, No0500, Ap

ALMA - VLBA\_PT, fgroup Q, pol XR



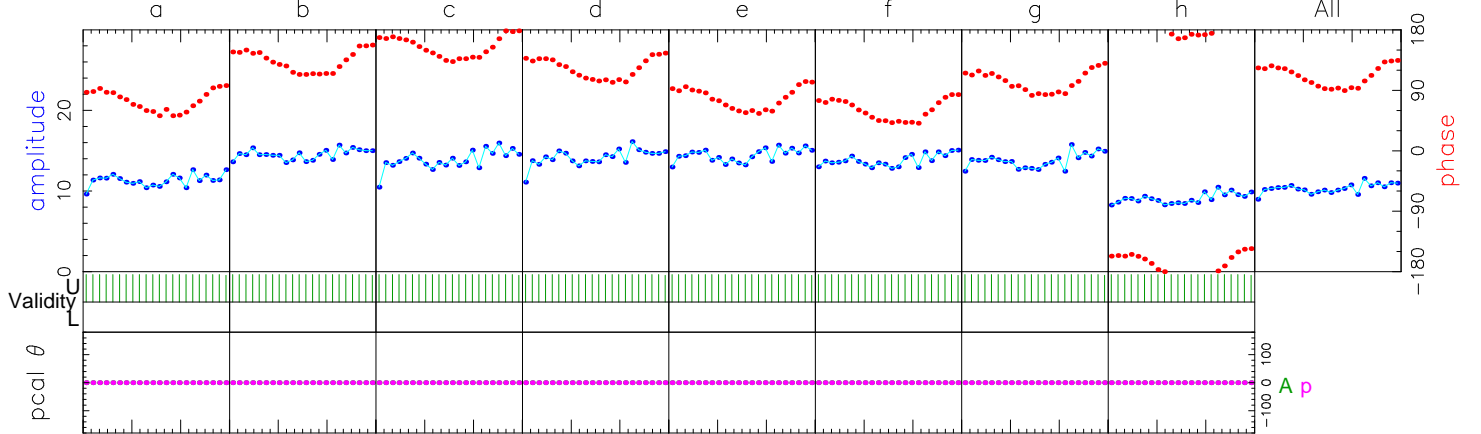
Fringe quality 5

SNR 366.5  
 Int time 179.975  
 Amp 9.991  
 Phase -338.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.062651  
 MBD -0.000115  
 Fringe rate (Hz)  
 -0.018463  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151744  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
p	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		
Group delay (usec) (SBD)	-7.16263547762E+03									
Sband delay (usec)	-7.16263551341E+03									
Phase delay (usec)	-7.16257285550E+03									
Delay rate (us/s)	-5.41188226766E-01									
Total phase (deg)			-85.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
simultaneous interpolator										

ph/seg (deg) 15.0 0.7 Search (1024X32) 9.735 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 6.6 1.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 48.0 0.4 Inc. seg. avg. 10.339 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 32.0 0.8 Inc. frq. avg. 12.671 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 A: az 14.3 el 27.9 pa -163.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1926.439 -4517.870 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/c241d/v1/7mm/1234/No0500//Ap..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ap.Q.54.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

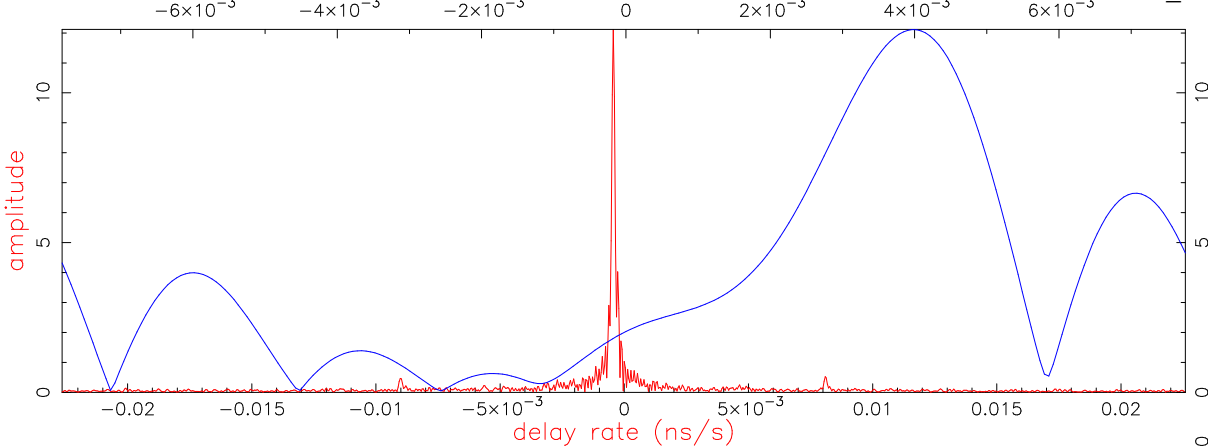
aux01

2013+370.3MP56K, No0500, Ap

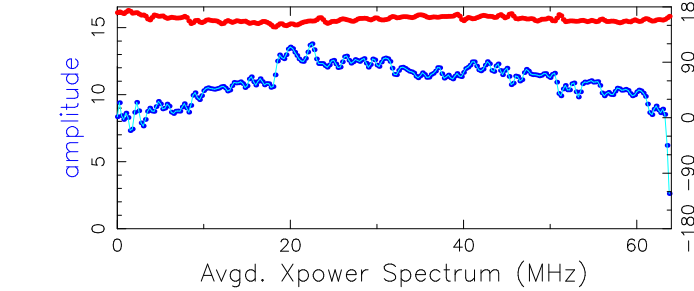
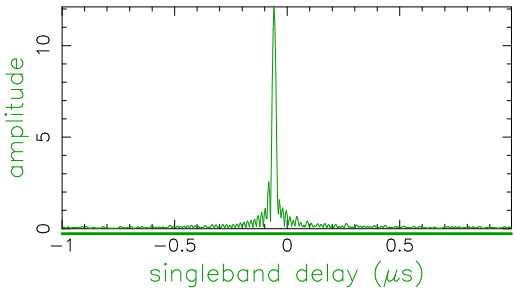
ALMA - VLBA\_PT, fgroup Q, pol YL

multiband delay ( $\mu$ s)

Fringe quality 5

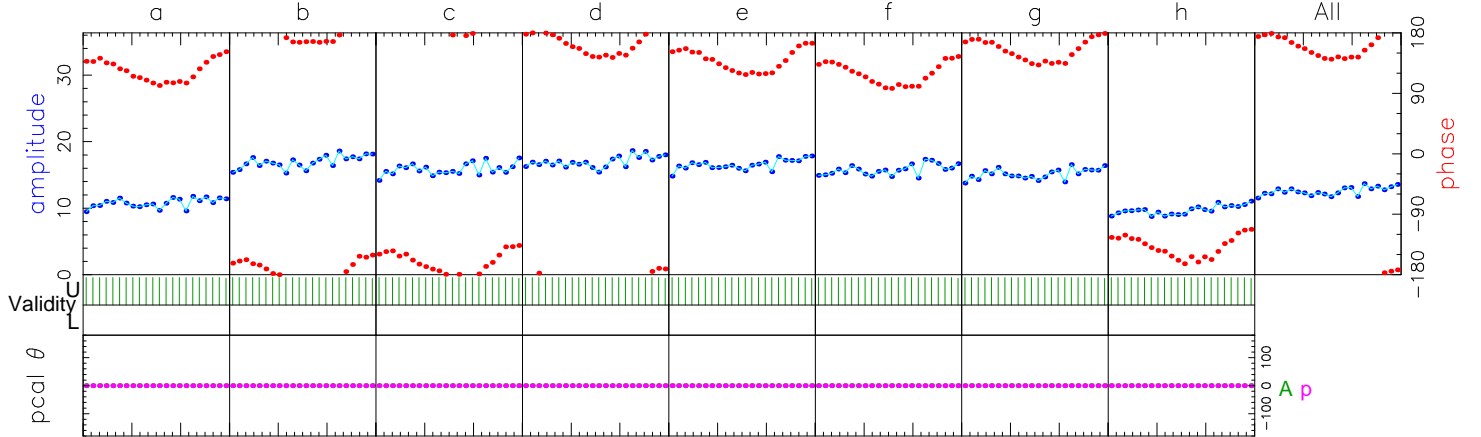


SNR 444.6  
Int time 179.975  
Amp 12.120  
Phase -288.1  
PFD 0.0e+00  
Delays (us)  
SBD -0.058312  
MBD 0.004000  
Fringe rate (Hz)  
-0.018530  
Ion TEC 0.000  
Ref freq (MHz)  
43140.0000  
AP (sec) 0.512



Exp. c241d  
Exper # 1234  
Yr:day 2024:113  
Start 094000.00  
Stop 094300.22  
FRT 094130.00  
Corr/FF/build  
2024:332:222845  
2025:042:151747  
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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		
p	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-7.16263136287E+03	Apriori delay (usec)	-7.16257286266E+03	Resid mbdelay (usec)	3.99979E-03	+/-	2.4E-06
Sband delay (usec)	-7.16263117466E+03	Apriori clock (usec)	-2.1131233E+03	Resid sbdelay (usec)	-5.83120E-02	+/-	1.9E-05
Phase delay (usec)	-7.16257285224E+03	Apriori clockrate (us/s)	-3.8952890E-07	Resid phdelay (usec)	1.04221E-05	+/-	1.7E-08
Delay rate (us/s)	-5.41188228314E-01	Apriori rate (us/s)	-5.41187798793E-01	Resid rate (us/s)	-4.29521E-07	+/-	1.6E-10
Total phase (deg)	-34.4	Apriori accel (us/s/s)	-3.81825044485E-05	Resid phase (deg)	-288.1	+/-	0.3

ph/seg (deg)	15.7	0.6	Amplitude	12.120 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	6.2	1.1	Search (1024X32)	11.823	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	39.4	0.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	27.1	0.6	Inc. seg. avg.	12.580	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.023 0.023
			Inc. frq. avg.	14.184	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
						ion window (TEC) 0.00 0.00

A: az 14.3 el 27.9 pa -163.6 p: az 69.2 el 44.9 pa -76.1 u,v (fr/asec) 1926.439 -4517.870 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//Ap..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//Ap.Q.74.3MP56K

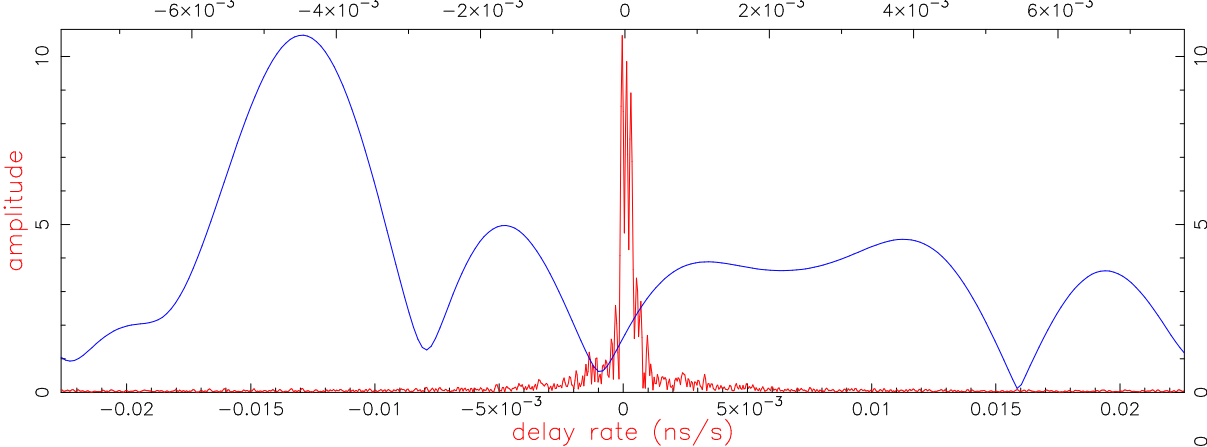
Mk4/DiFX fourfit 3.25 rev 0

aux01

2013+370.3MP56K, No0500, AX

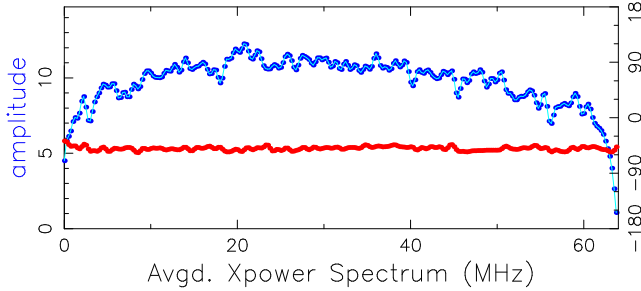
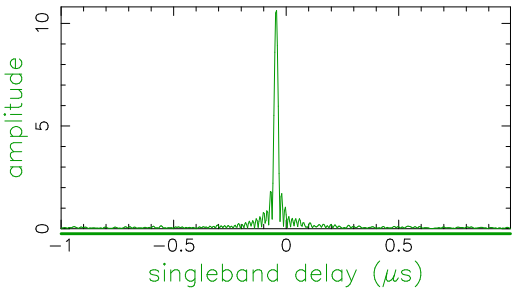
ALMA - ONSALA60, fgroup Q, pol XL

multiband delay ( $\mu$ s)



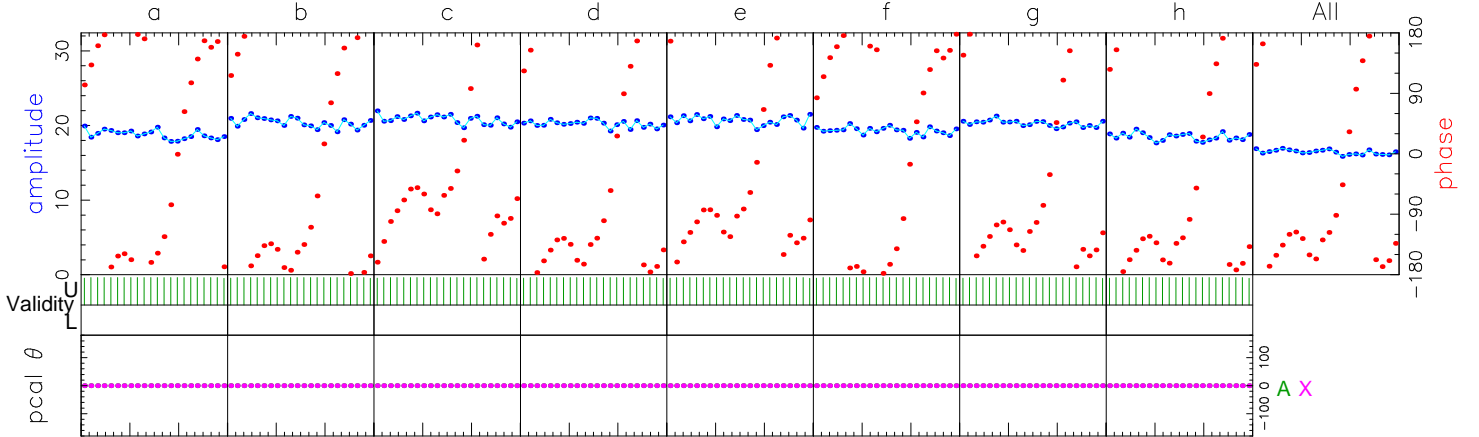
Fringe quality 3

SNR 396.4  
 Int time 179.835  
 Amp 10.808  
 Phase -39.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.044679  
 MBD -0.004522  
 Fringe rate (Hz)  
 -0.001112  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151740  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
A:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX		
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL		

Group delay (usec) (SBD)	-6.98576516091E+03	Apriori delay (usec)	-6.98571376382E+03	Resid mbdelay (usec)	-4.52209E-03	+/-	2.7E-06
Sband delay (usec)	-6.98575844307E+03	Apriori clock (usec)	-2.2203430E+03	Resid sbdelay (usec)	-4.46793E-02	+/-	2.2E-05
Phase delay (usec)	-6.98571377359E+03	Apriori clockrate (us/s)	-1.2274550E-06	Resid phdelay (usec)	-9.77781E-06	+/-	1.9E-08
Delay rate (us/s)	9.04972406562E-01	Apriori rate (us/s)	9.04972432332E-01	Resid rate (us/s)	-2.57695E-08	+/-	1.8E-10
Total phase (deg)	-316.9	Apriori accel (us/s/s)	-5.87441543305E-05	Resid phase (deg)	-39.4	+/-	0.3

ph/seg (deg)	59.4	0.7	Search (1024X32)	10.209	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	52.2	1.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	40.1	0.4	Inc. seg. avg.	16.441	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	19.5	0.7	Inc. frq. avg.	12.848	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.023	0.023

A: az 14.3 el 27.9 pa -163.6 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -3294.582 -6084.506 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AX..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AX.Q.34.3MP56K

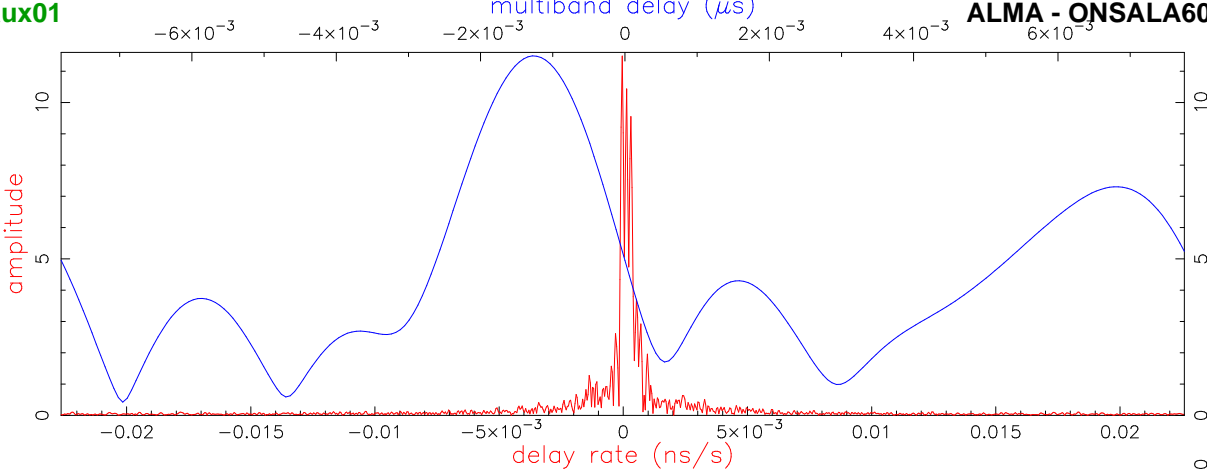
Mk4/DiFX fourfit 3.25 rev 0

aux01

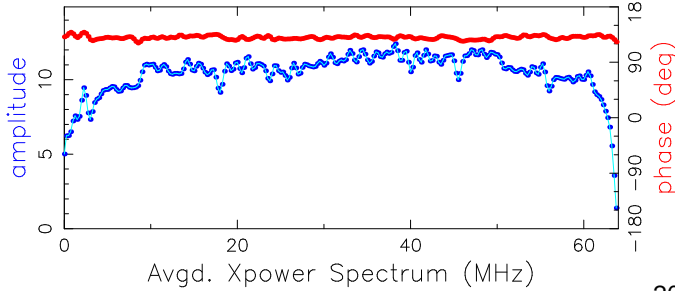
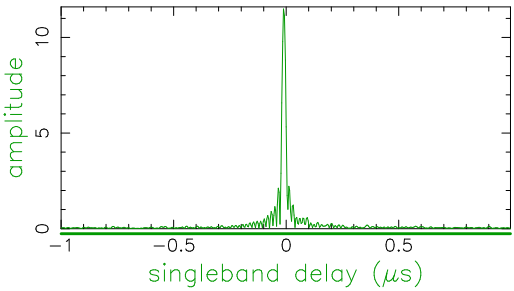
2013+370.3MP56K, No0500, AX

ALMA - ONSALA60, fgroup Q, pol YR

Fringe quality 2

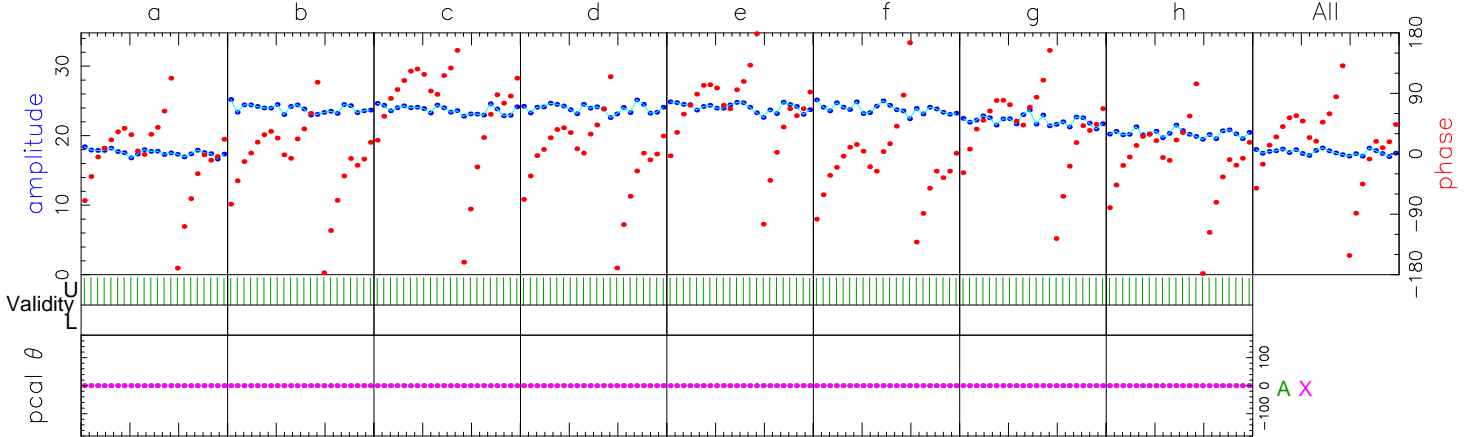


SNR 425.4  
 Int time 179.835  
 Amp 11.601  
 Phase -178.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.010428  
 MBD -0.001231  
 Fringe rate (Hz)  
 -0.001123  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151743  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0		
A	0	0	0	0	0	0	0	0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
A:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY		Chan ids
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR		Tracks

Group delay (usec) (SBD)	-6.98573061994E+03	Apriori delay (usec)	-6.98571376382E+03	Resid mbdelay (usec)	-1.23112E-03	+/-	2.6E-06
Sband delay (usec)	-6.98572419132E+03	Apriori clock (usec)	-2.2203430E+03	Resid sbdelay (usec)	-1.04275E-02	+/-	2.0E-05
Phase delay (usec)	-6.98571376225E+03	Apriori clockrate (us/s)	-1.2274550E-06	Resid phdelay (usec)	1.57001E-06	+/-	1.7E-08
Delay rate (us/s)	9.04972406291E-01	Apriori rate (us/s)	9.04972432332E-01	Resid rate (us/s)	-2.60411E-08	+/-	1.7E-10
Total phase (deg)	-95.7	Apriori accel (us/s/s)	-5.87441543305E-05	Resid phase (deg)	-178.1	+/-	0.3

ph/seg (deg)	59.2	0.6	Search (1024X32)	10.866	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	52.0	1.1	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)	44.2	0.4	Inc. seg. avg.	17.619	Bits/sample: 2x2	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023	0.023
amp/frq (%)	29.0	0.7	Inc. frq. avg.	14.637	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 14.3 el 27.9 pa -163.6 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -3294.582 -6084.506 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AX..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AX.Q.46.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

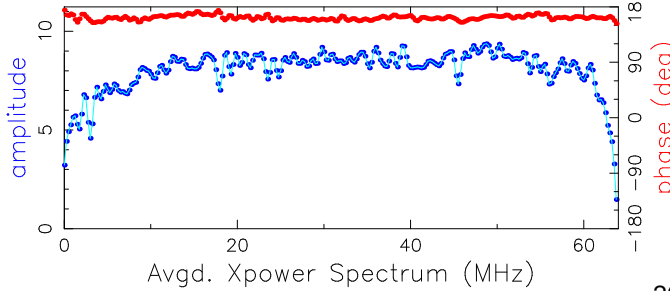
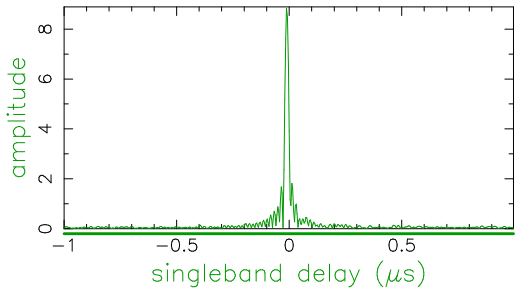
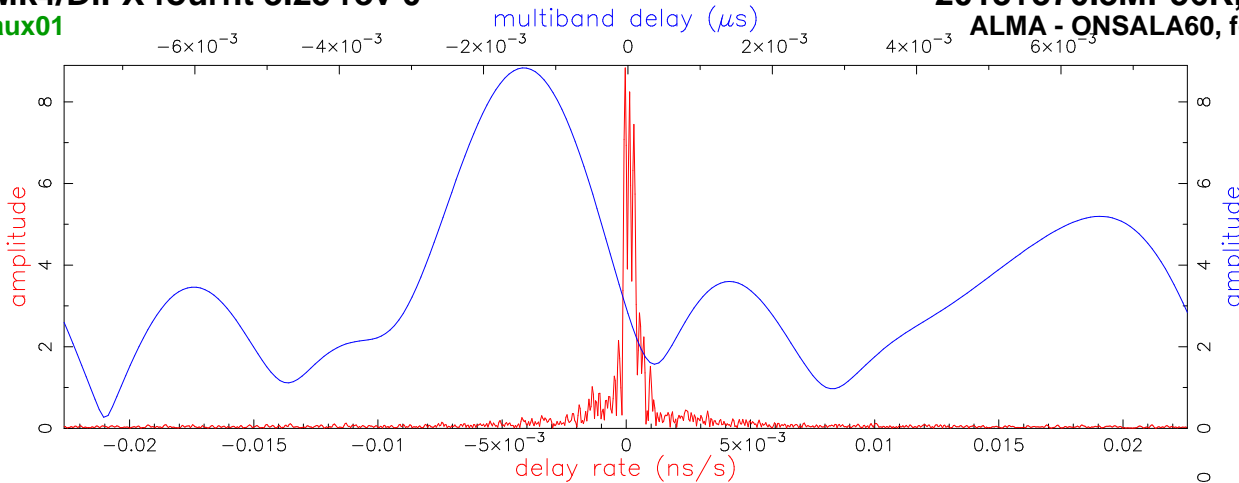
aux01

2013+370.3MP56K, No0500, AX

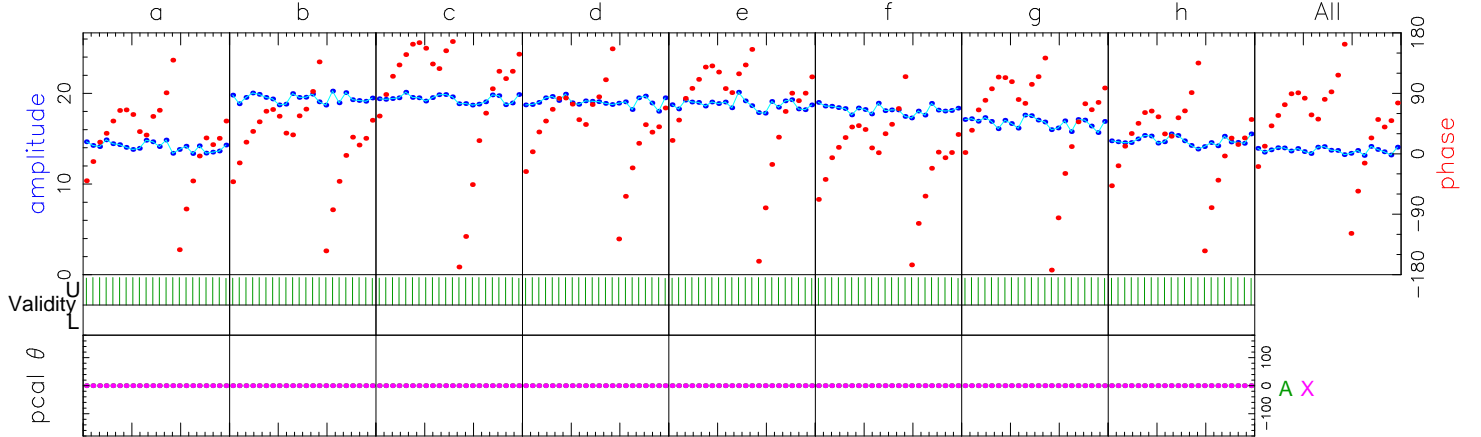
ALMA - ONSALA60, fgroup Q, pol XR

Fringe quality 2

SNR 326.2  
 Int time 179.835  
 Amp 8.894  
 Phase -145.9  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.010630  
 MBD -0.001414  
 Fringe rate (Hz)  
 -0.001093  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512  
 Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151746  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	31.1	31.0	130.7	49.0	96.0	7.9	80.1	29.3	Phase	56.6
	9.1	12.5	12.6	12.2	12.2	11.8	10.8	9.6	Ampl.	11.3
	255.3	254.2	254.0	253.9	253.6	254.0	253.7	254.3	Sbd box	254.3
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
X	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-6.98573080332E+03		Apriori delay (usec)		-6.98571376382E+03		Resid mbdelay (usec)		-1.41450E-03	+/- 3.3E-06
Sband delay (usec)	-6.98572439407E+03		Apriori clock (usec)		-2.2203430E+03		Resid sbdelay (usec)		-1.06302E-02	+/- 2.6E-05
Phase delay (usec)	-6.98571376017E+03		Apriori clockrate (us/s)		-1.2274550E-06		Resid phdelay (usec)		3.64190E-06	+/- 2.3E-08
Delay rate (us/s)	9.04972407004E-01		Apriori rate (us/s)		9.04972432332E-01		Resid rate (us/s)		-2.53280E-08	+/- 2.2E-10
Total phase (deg)			Apriori accel (us/s/s)		-5.87441543305E-05		Resid phase (deg)		-145.9	+/- 0.4

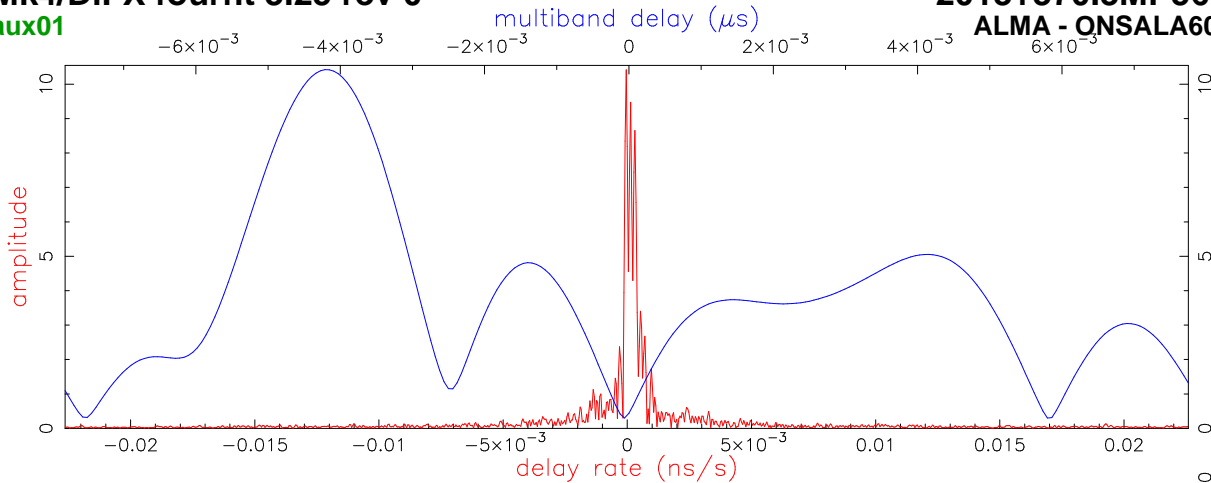
ph/seg (deg) RMS Theor. Amplitude 8.894 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 59.6 0.8 Search (1024X32) 8.479 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 54.3 1.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 44.9 0.5 Inc. seg. avg. 13.709 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.023 0.023  
 amp/frq (%) 31.0 0.9 Inc. frq. avg. 11.342 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 A: az 14.3 el 27.9 pa -163.6 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -3294.582 -6084.506 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AX..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AX.Q.63.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

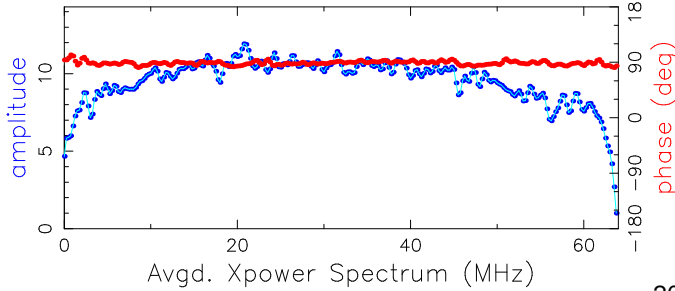
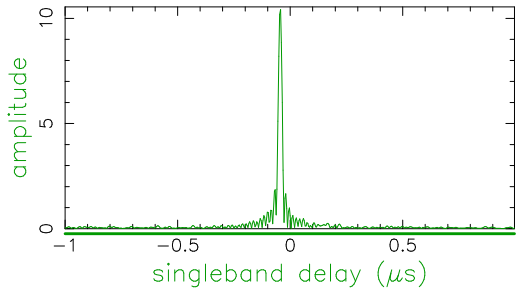
2013+370.3MP56K, No0500, AX

ALMA - ONSALA60, fgroup Q, pol YL



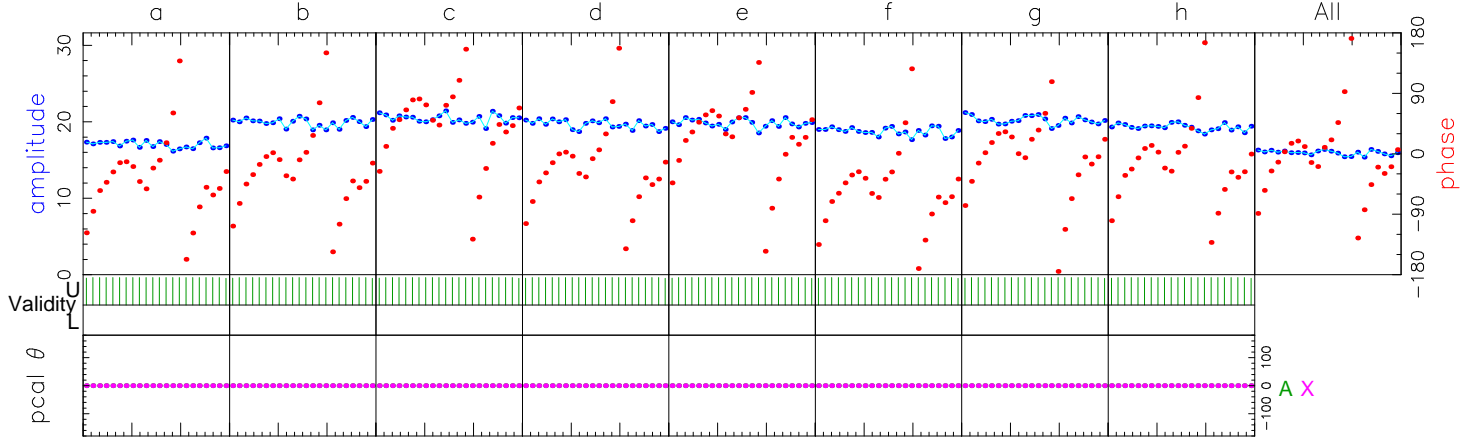
Fringe quality 2

SNR 386.7  
 Int time 179.835  
 Amp 10.546  
 Phase -261.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.044422  
 MBD -0.004228  
 Fringe rate (Hz)  
 -0.001146  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151748  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-44.2	-33.1	49.0	-30.0	30.7	-59.3	-0.1	-21.4		-13.7
	11.1	12.9	13.3	12.8	13.0	12.3	13.2	12.7	Ampl.	12.6
	247.2	245.2	245.4	245.1	245.0	244.9	245.1	245.8	Sbd box	245.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
X	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-6.98576486657E+03	Apriori delay (usec)	-6.98571376382E+03	Resid mbdelay (usec)	-4.22775E-03	+/-	2.8E-06
Sband delay (usec)	-6.98575818557E+03	Apriori clock (usec)	-2.2203430E+03	Resid sbdelay (usec)	-4.44218E-02	+/-	2.2E-05
Phase delay (usec)	-6.98571376470E+03	Apriori clockrate (us/s)	-1.2274550E-06	Resid phdelay (usec)	-8.83757E-07	+/-	1.9E-08
Delay rate (us/s)	9.04972405756E-01	Apriori rate (us/s)	9.04972432332E-01	Resid rate (us/s)	-2.65759E-08	+/-	1.8E-10
Total phase (deg)	-178.8	Apriori accel (us/s/s)	-5.87441543305E-05	Resid phase (deg)	-261.2	+/-	0.3

ph/seg (deg)	59.0	RMS	59.0	Theor.	0.7	Amplitude	10.546 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	51.4		51.4		1.2	Search (1024X32)	9.856	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.4		40.4		0.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	20.8		20.8		0.7	Inc. seg. avg.	15.960	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	12.646	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6 X: az 272.4 el 44.4 pa 42.5 u,v (fr/asec) -3294.582 -6084.506 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AX..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AX.Q.77.3MP56K

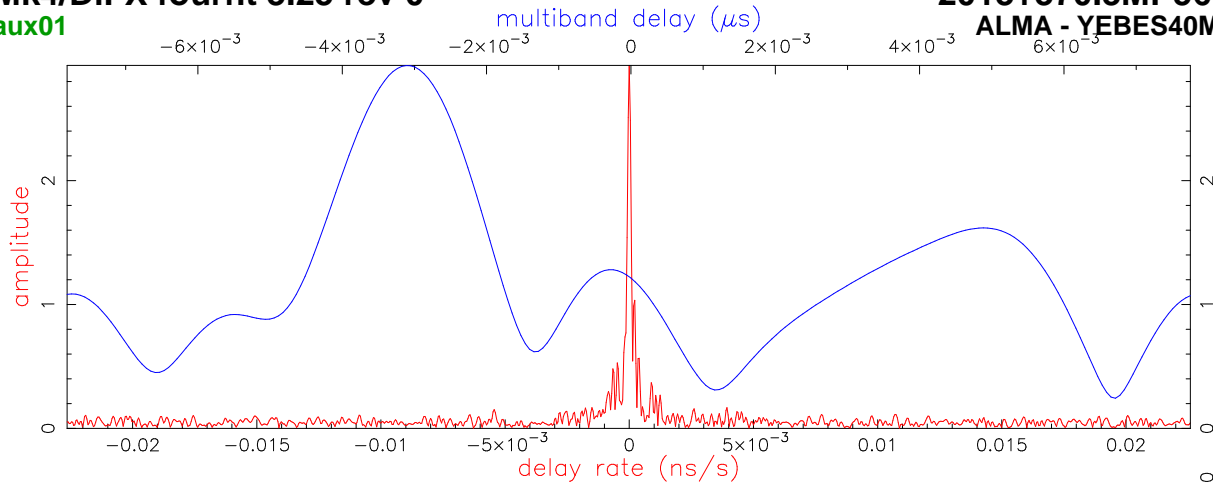


Mk4/DiFX fourfit 3.25 rev 0

aux01

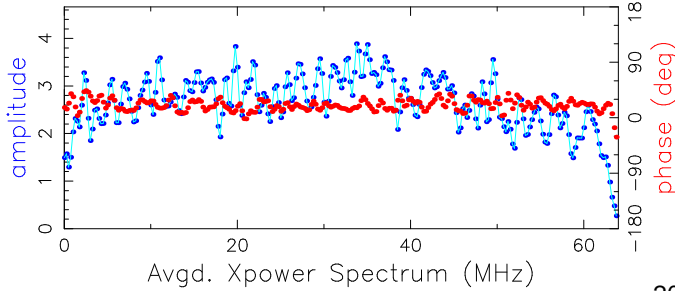
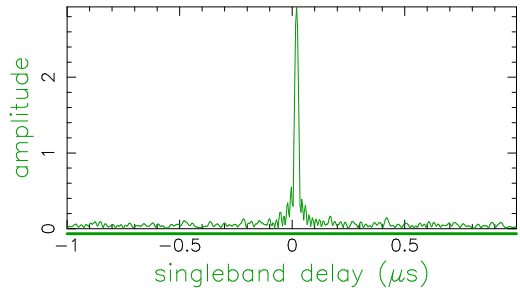
2013+370.3MP56K, No0500, AY

ALMA - YEBES40M, fgroup Q, pol XL



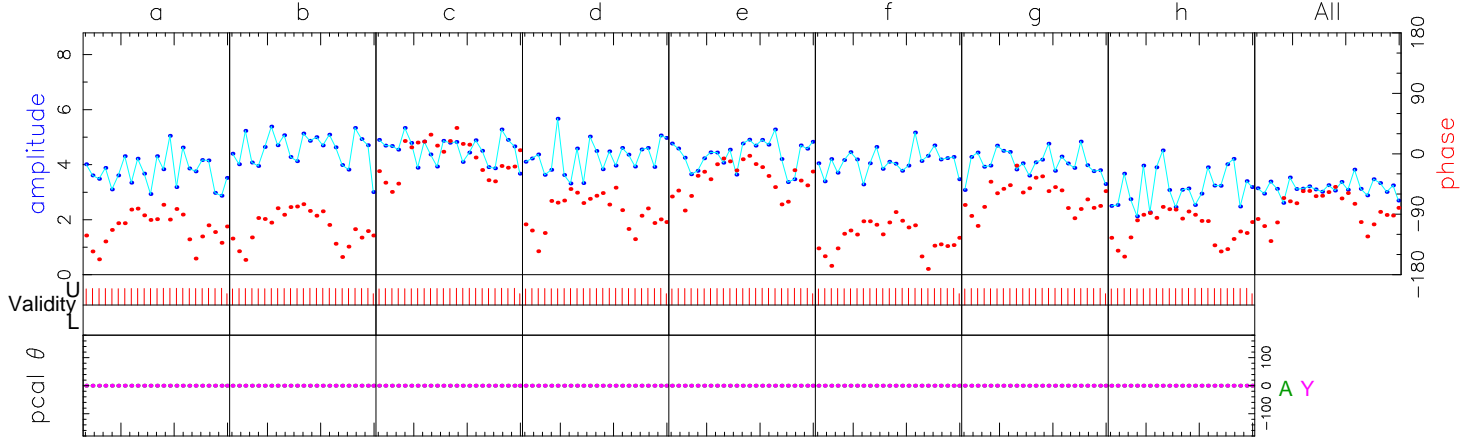
Fringe quality 5

SNR 79.2  
 Int time 97.781  
 Amp 2.931  
 Phase 121.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.019343  
 MBD -0.003103  
 Fringe rate (Hz)  
 -0.000670  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094017.41  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151853  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-109.6	-108.3	-5.8	-86.0	-35.5	-125.0	-63.1	-109.8	Phase	-81.0
	3.5	4.2	4.1	3.9	4.0	3.8	3.8	2.9	Ampl.	3.8
	263.2	261.7	261.7	261.4	261.5	261.3	261.5	261.0	Sbd box	262.0
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
A:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-8.73187886359E+03	Apriori delay (usec)	-8.73189138581E+03	Resid mbdelay (usec)	-3.10278E-03	+/-	1.4E-05
Sband delay (usec)	-8.73187204306E+03	Apriori clock (usec)	-1.9964353E+03	Resid sbdelay (usec)	1.93428E-02	+/-	1.1E-04
Phase delay (usec)	-8.73189139102E+03	Apriori clockrate (us/s)	9.9785913E-07	Resid phdelay (usec)	-5.21237E-06	+/-	9.3E-08
Delay rate (us/s)	1.01572801815E+00	Apriori rate (us/s)	1.01572803369E+00	Resid rate (us/s)	-1.55318E-08	+/-	9.9E-10
Total phase (deg)		Apriori accel (us/s/s)	-3.50970853651E-05	Resid phase (deg)	121.5	+/-	1.4

ph/seg (deg)	22.5	Theor.	3.5	Amplitude	2.931 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	11.8		6.1	Search (1024X32)	2.839	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	45.4		2.0	Inc. seg. avg.	3.161	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	31.6		3.6	Inc. frq. avg.	3.774	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6 Y: az 281.3 el 52.4 pa 69.4 u, v (fr/asec) -3682.584 -4693.496 simultaneous interpolator

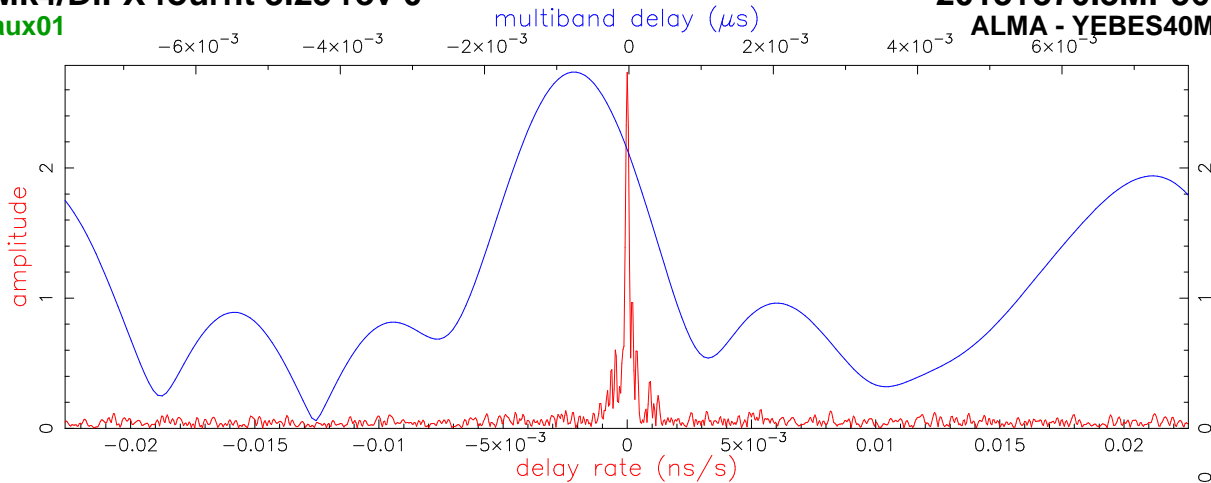
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AY.Q.368.3MP56K

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aux01

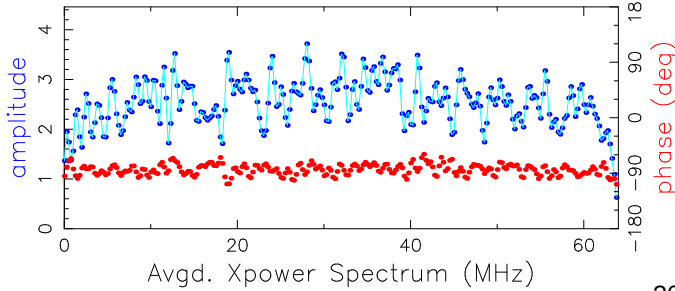
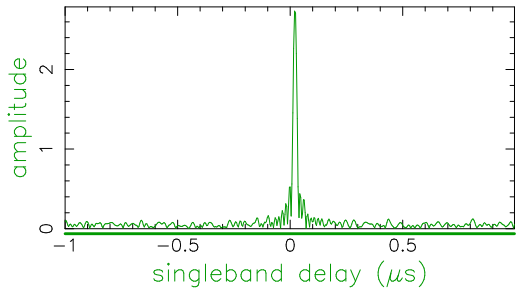
2013+370.3MP56K, No0500, AY

ALMA - YEBES40M, fgroup Q, pol YR



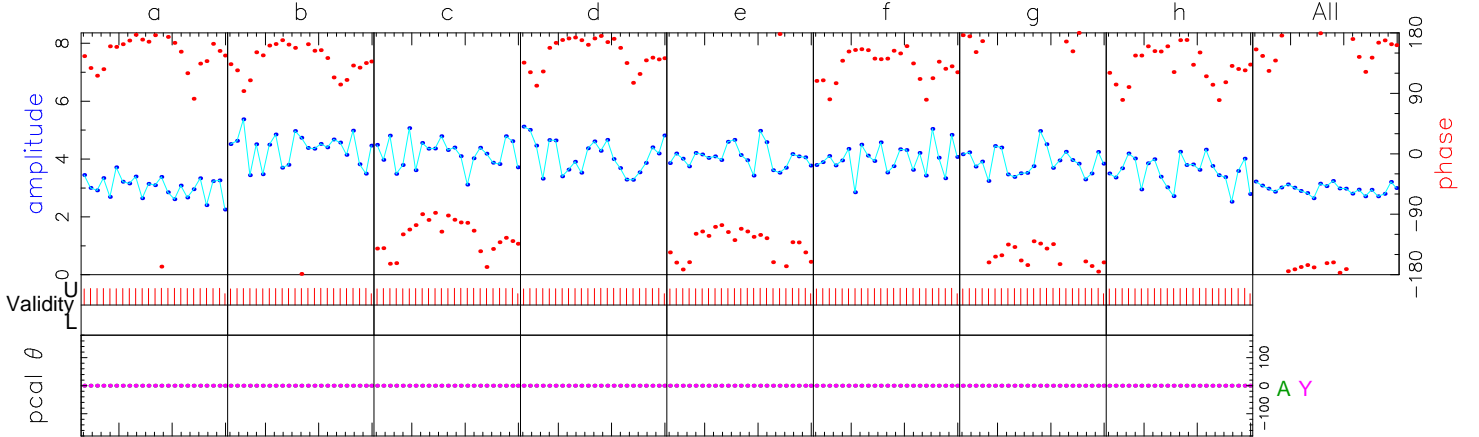
Fringe quality 4

SNR 75.4  
 Int time 97.781  
 Amp 2.788  
 Phase 11.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.021288  
 MBD -0.000718  
 Fringe rate (Hz)  
 -0.000683  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094017.41  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151858  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0		
A	0	0	0	0	0	0	0	0	Ampl.	3.6
Y	0	0	0	0	0	0	0	0	Sbd box	262.4
A:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
A:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
Y	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	PC amp	
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Chan ids	
									Tracks	

Group delay (usec) (SBD)	-8.73187647909E+03	Apriori delay (usec)	-8.73189138581E+03	Resid mbdelay (usec)	-7.18281E-04	+/-	1.4E-05
Sband delay (usec)	-8.73187009781E+03	Apriori clock (usec)	-1.9964353E+03	Resid sbdelay (usec)	2.12880E-02	+/-	1.1E-04
Phase delay (usec)	-8.73189137492E+03	Apriori clockrate (us/s)	9.9785913E-07	Resid phdelay (usec)	1.08872E-05	+/-	9.8E-08
Delay rate (us/s)	1.01572801786E+00	Apriori rate (us/s)	1.01572803369E+00	Resid rate (us/s)	-1.58261E-08	+/-	1.0E-09
Total phase (deg)	233.4	Apriori accel (us/s/s)	-3.50970853651E-05	Resid phase (deg)	11.6	+/-	1.5

ph/seg (deg)	23.0	RMS	2.788 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	8.7	Theor.	3.6	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	46.7	Search (1024X32)	2.630	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	31.9	Inc. seg. avg.	2.958	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
		Inc. frq. avg.	3.591	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -3682.584 -4693.496 simultaneous interpolator

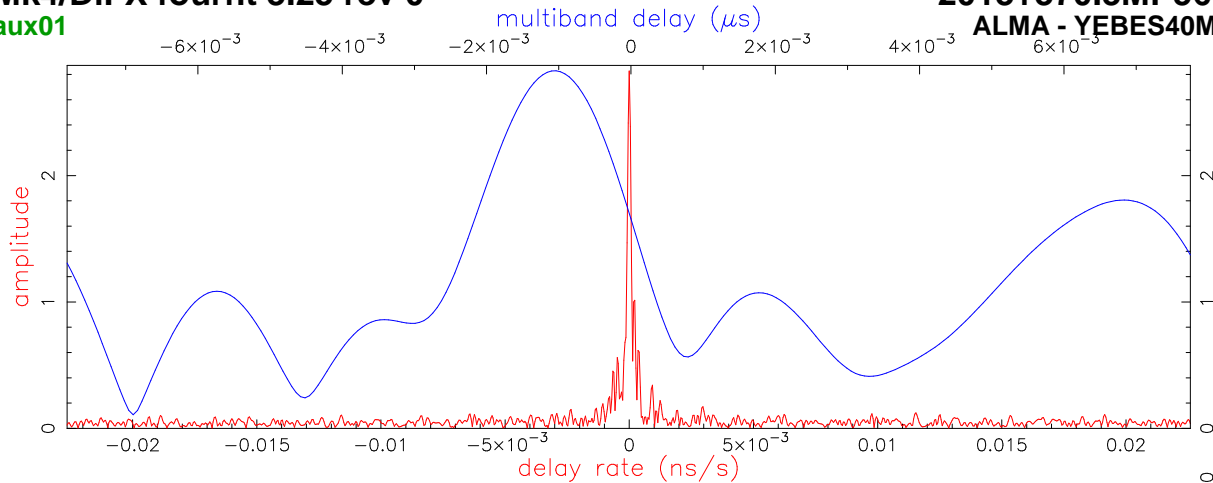
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AY.Q.386.3MP56K

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aux01

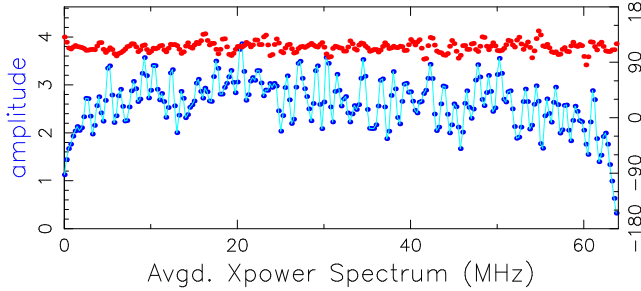
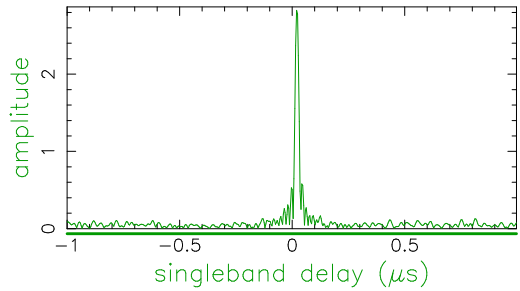
2013+370.3MP56K, No0500, AY

ALMA - YEBES40M, fgroup Q, pol XR



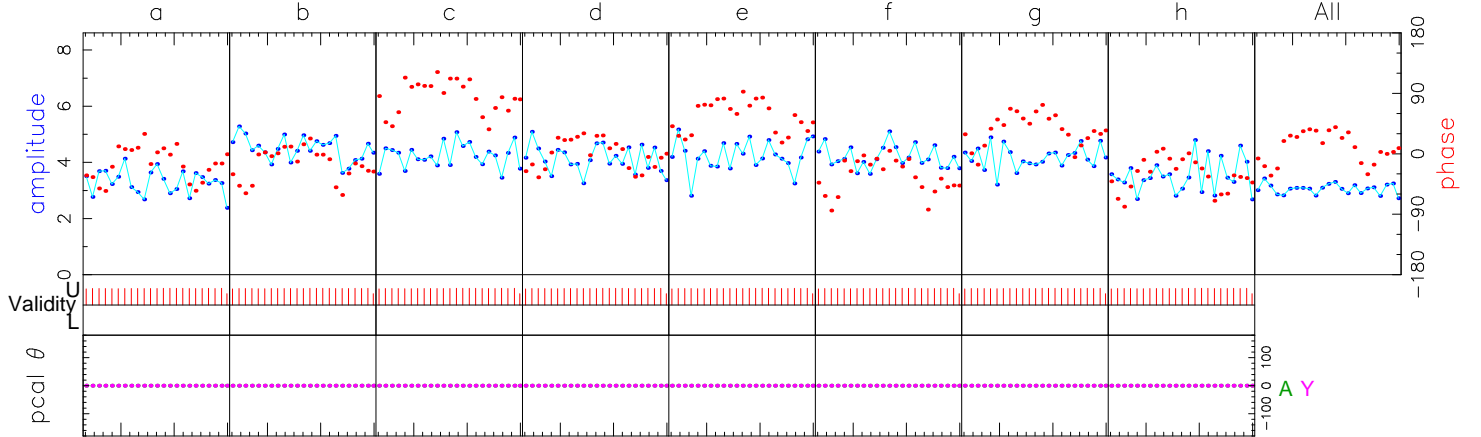
Fringe quality 5

SNR 77.7  
 Int time 97.781  
 Amp 2.872  
 Phase 211.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.021128  
 MBD -0.001015  
 Fringe rate (Hz)  
 -0.000582  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094017.41  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151903  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-15.4	-16.0	85.1	-0.8	55.8	-33.5	35.6	-31.0	Phase	9.1
	3.0	4.1	3.9	3.8	3.9	3.8	3.9	3.2	Ampl.	3.7
	263.7	262.0	262.2	262.1	262.0	261.9	261.8	261.9	Sbd box	262.4
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
A:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
Y	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-8.73187677606E+03	Apriori delay (usec)	-8.73189138581E+03	Resid mbdelay (usec)	-1.01525E-03	+/-	1.4E-05
Sband delay (usec)	-8.73187025756E+03	Apriori clock (usec)	-1.9964353E+03	Resid sbdelay (usec)	2.11283E-02	+/-	1.1E-04
Phase delay (usec)	-8.73189138523E+03	Apriori clockrate (us/s)	9.9785913E-07	Resid phdelay (usec)	5.83685E-07	+/-	9.5E-08
Delay rate (us/s)	1.01572802019E+00	Apriori rate (us/s)	1.01572803369E+00	Resid rate (us/s)	-1.34945E-08	+/-	1.0E-09
Total phase (deg)	73.4	Apriori accel (us/s/s)	-3.50970853651E-05	Resid phase (deg)	211.6	+/-	1.5

ph/seg (deg)	22.6	RMS	22.6	Theor.	3.5	Amplitude	2.872 +/- 0.037	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	8.9		8.9		6.2	Search (1024X32)	2.778	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	47.3		47.3		2.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	31.5		31.5		3.6	Inc. seg. avg.	3.057	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Inc. frq. avg.	3.707	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -3682.584 -4693.496 simultaneous interpolator

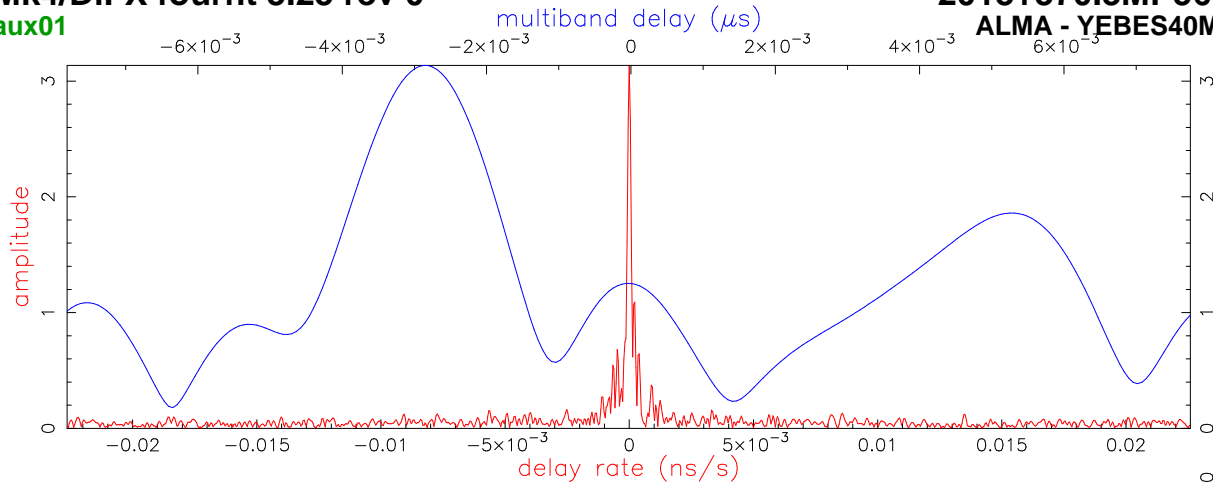
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AY.Q.396.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

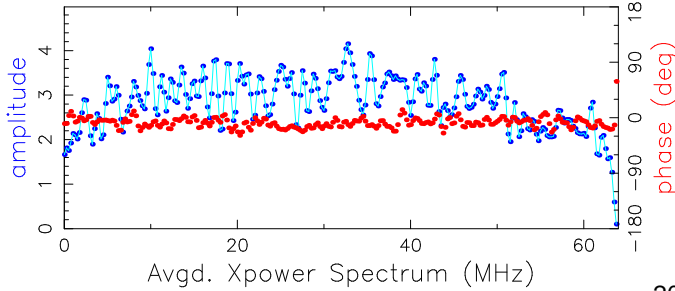
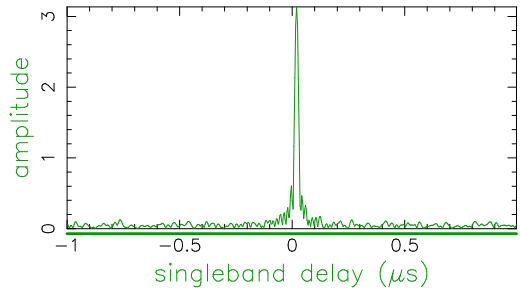
2013+370.3MP56K, No0500, AY

ALMA - YEBES40M, fgroup Q, pol YL



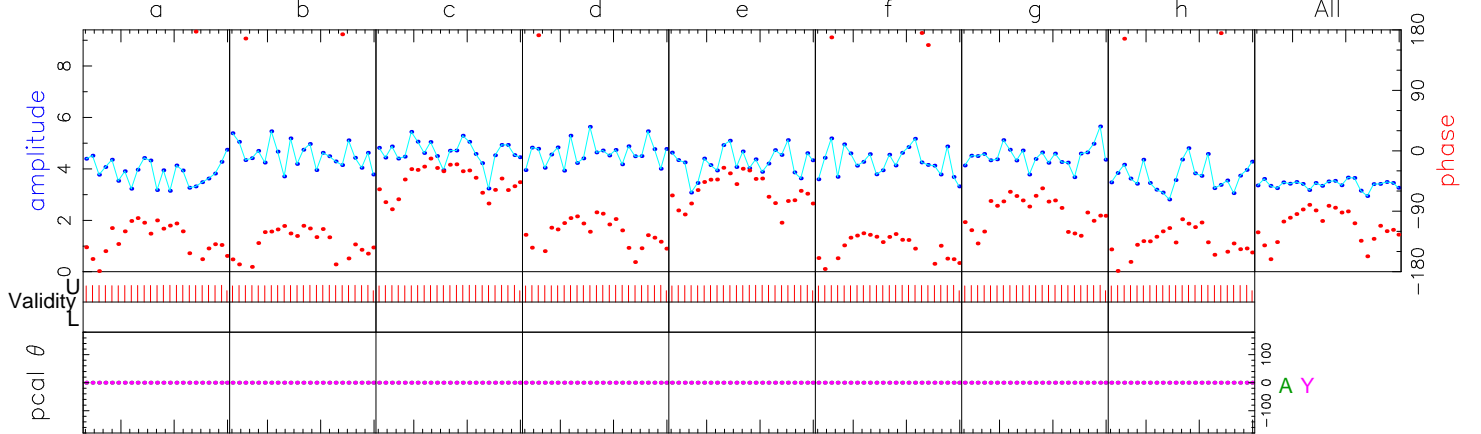
Fringe quality 4

SNR 84.8  
 Int time 97.781  
 Amp 3.136  
 Phase 91.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.019514  
 MBD -0.002850  
 Fringe rate (Hz)  
 -0.000690  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094017.41  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151906  
 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

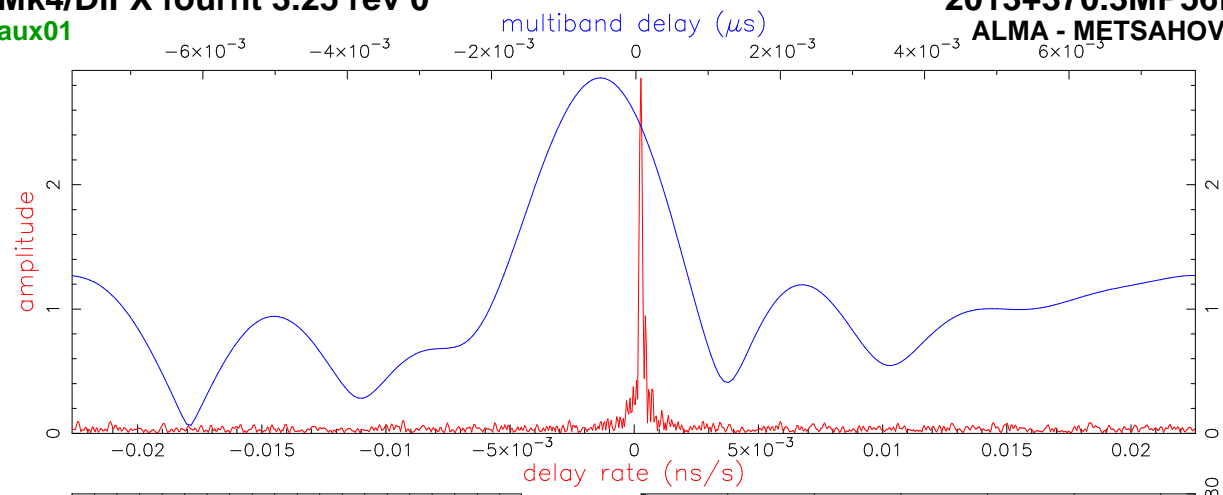


	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-133.2	-140.9	-43.2	-124.2	-58.9	-148.8	-91.4	-139.7	Phase	-110.8
	3.6	4.2	4.3	4.2	4.0	4.0	4.1	3.4	Ampl.	4.0
	263.3	261.8	261.8	261.5	261.4	261.2	261.5	261.3	Sbd box	262.0
U/L	318/0	318/0	318/0	318/0	318/0	318/0	318/0	318/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
A:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
Y	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-8.73187861056E+03	Apriori delay (usec)	-8.73189138581E+03	Resid mbdelay (usec)	-2.84975E-03	+/-	1.3E-05
Sband delay (usec)	-8.73187187156E+03	Apriori clock (usec)	-1.9964353E+03	Resid sbdelay (usec)	1.95142E-02	+/-	1.0E-04
Phase delay (usec)	-8.73189139294E+03	Apriori clockrate (us/s)	9.9785913E-07	Resid phdelay (usec)	-7.13250E-06	+/-	8.7E-08
Delay rate (us/s)	1.01572801770E+00	Apriori rate (us/s)	1.01572803369E+00	Resid rate (us/s)	-1.59902E-08	+/-	9.3E-10
Total phase (deg)	-46.5	Apriori accel (us/s/s)	-3.50970853651E-05	Resid phase (deg)	91.7	+/-	1.4

ph/seg (deg)	23.3	RMS	3.2	Theor.	3.136 +/- 0.037	Search (1024X32)	3.063	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	9.9	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	Inc. seg. avg.	3.395	Bits/sample:	2x2	SampCntNorm:	enabled
ph/frq (deg)	43.8	Inc. frq. avg.	3.964	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Inc. frq. avg.	3.964	Data rate (Mb/s):	2048	nlags:	256
amp/frq (%)	28.3	u,v (fr/asec)	-3682.584 -4693.496	ion window (TEC)	0.00 0.00	simultaneous interpolator					

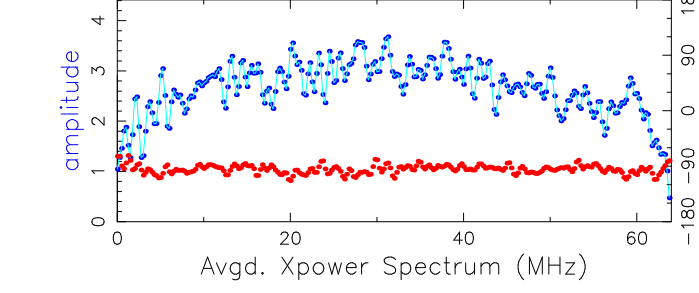
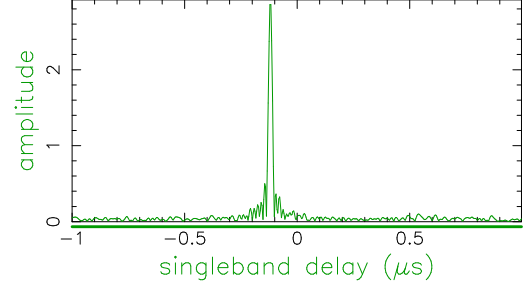
A: az 14.3 el 27.9 pa -163.6 Y: az 281.3 el 52.4 pa 69.4 u,v (fr/asec) -3682.584 -4693.496 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500//AY..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500//AY.Q.403.3MP56K



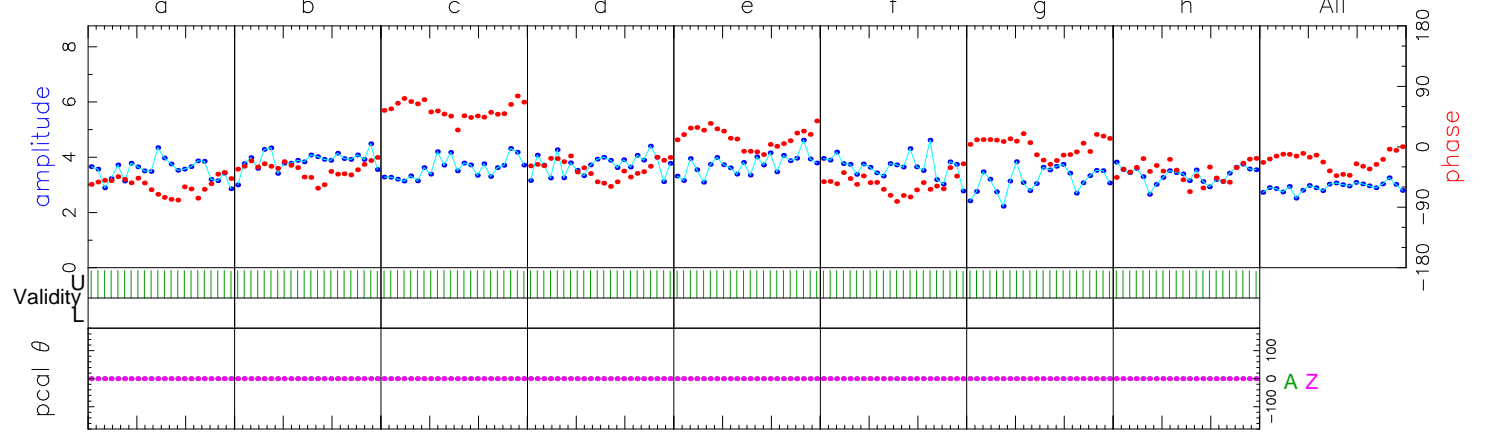
Fringe quality 5

SNR 107.1  
Int time 179.947  
Amp 2.920  
Phase -200.8  
PFD 0.0e+00  
Delays (us)  
SBD -0.119137  
MBD -0.000542  
Fringe rate (Hz)  
0.012098  
Ion TEC 0.000  
Ref freq (MHz)  
43140.0000  
AP (sec) 0.512

Exp. c241d  
Exper # 1234  
Yr:day 2024:113  
Start 094000.00  
Stop 094300.22  
FRT 094130.00  
Corr/FF/build  
2024:332:222845  
2025:042:151738  
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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All	
	-58.2	-33.9	54.8	-32.8	13.9	-55.6	1.0	-36.5	Phase	-20.8	
	3.5	3.8	3.5	3.6	3.6	3.1	3.3	3.3	Ampl.	3.5	
	228.0	226.6	226.2	226.2	226.1	226.0	225.6	226.4	Sbd box	226.5	
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used		
A	0	0	0	0	0	0	0	0	PC freqs		
Z	0	0	0	0	0	0	0	0	PC freqs		
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Z	1000	1000	1000	1000	1000	1000	1000	1000			
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids		
Z	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	-5.16550126159E+03		Apriori delay (usec)		-5.16537571927E+03		Resid mbdelay (usec)		-5.42318E-04	+/- 1.0E-05	
Sband delay (usec)	-5.16549485652E+03		Apriori clock (usec)		-2.1075212E+03		Resid sbdelay (usec)		-1.19137E-01	+/- 8.0E-05	
Phase delay (usec)	-5.16537572061E+03		Apriori clockrate (us/s)		-6.2069187E-07		Resid phdelay (usec)		-1.34194E-06	+/- 6.9E-08	
Delay rate (us/s)	9.02960783989E-01		Apriori rate (us/s)		9.02960503561E-01		Resid rate (us/s)		2.80428E-07	+/- 6.6E-10	
Total phase (deg)			Apriori accel (us/s/s)		-6.95718715383E-05		Resid phase (deg)		-200.8	+/- 1.1	
	RMS	Theor.	Amplitude	2.920 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	12.3	2.5	Search (1024X32)	2.788		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000 1.000	
amp/seg (%)	5.2	4.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	42.0	1.5	Inc. seg. avg.	2.923		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.023 0.023	
amp/frq (%)	21.3	2.6	Inc. frq. avg.	3.504		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
A: az 14.3 el 27.9 pa -163.6		Z: az 280.0 el 38.3 pa 37.9		u, v (fr/asec) -3291.835 -6498.805						simultaneous interpolator	
Control file: cf_1234_gmva		Input file: /Exps/c241d/v1/7mm/1234/No0500//AZ...3MP56K		Output file: /Exps/c241d/v1/7mm/1234/No0500//AZ.Q.21.3MP56K							

Mk4/DiFX fourfit 3.25 rev 0

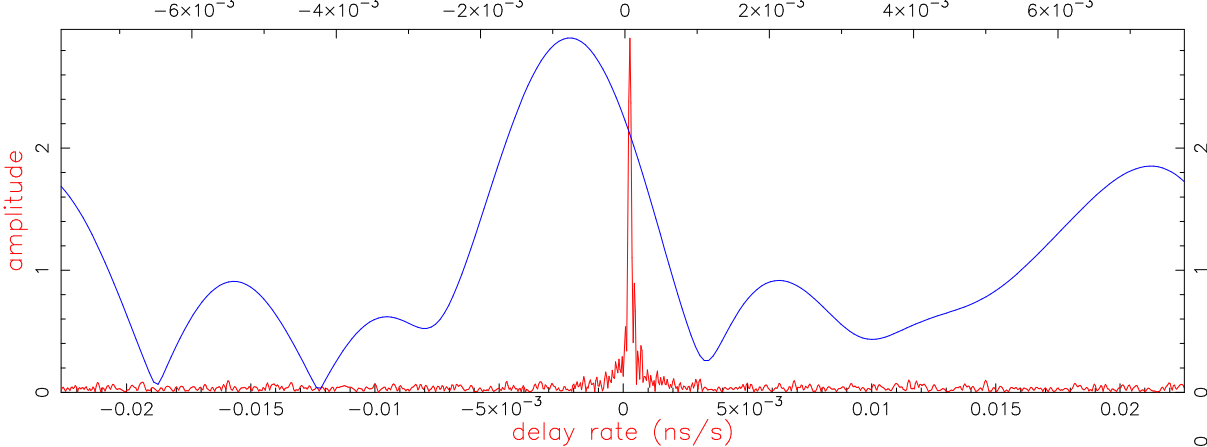
aux01

2013+370.3MP56K, No0500, AZ

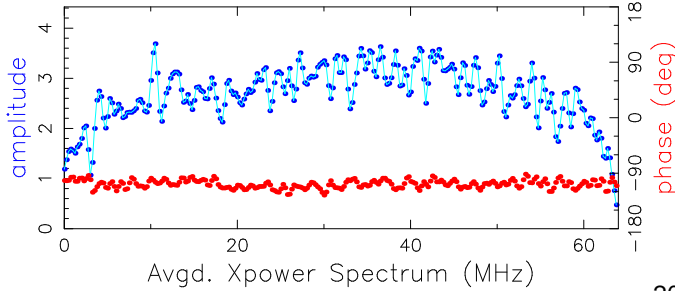
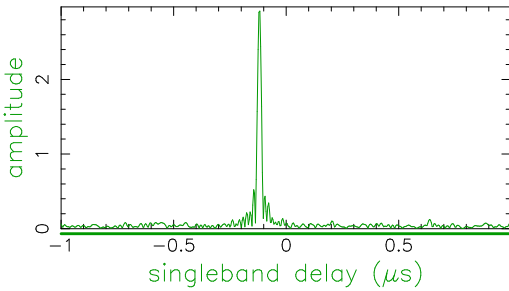
ALMA - METSAHOV, fgroup Q, pol YR

multiband delay ( $\mu$ s)

Fringe quality 5

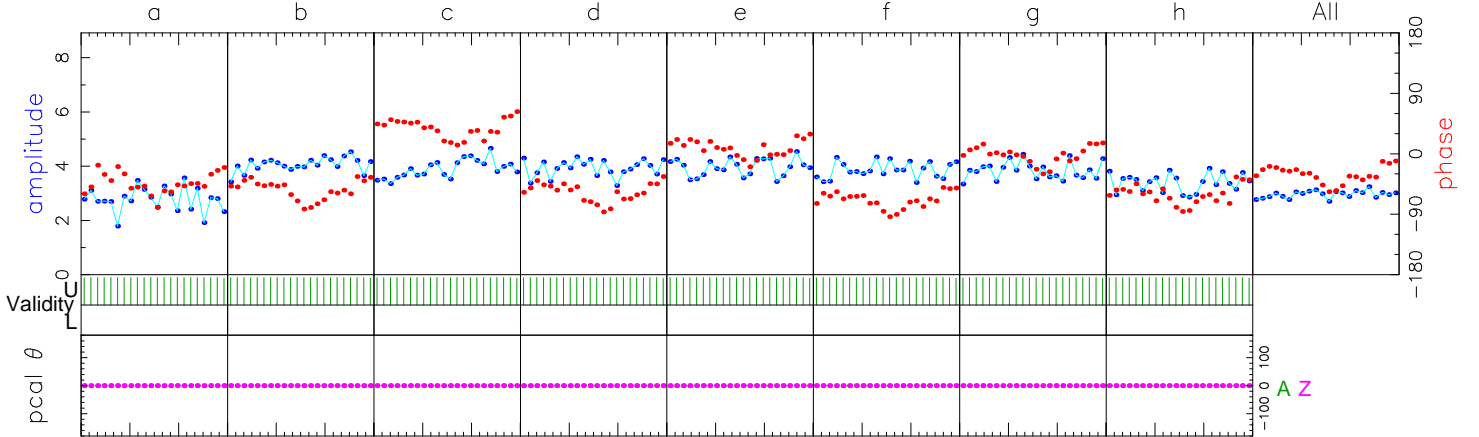


SNR 109.0  
 Int time 179.947  
 Amp 2.973  
 Phase -210.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.119037  
 MBD -0.000726  
 Fringe rate (Hz)  
 0.012063  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151740  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-44.1	-53.6	37.4	-57.3	8.9	-69.1	-1.8	-60.3	Phase	-30.8
	2.7	3.9	3.8	3.8	3.9	3.8	3.8	3.3	Ampl.	3.6
	227.7	226.4	226.2	226.1	225.9	226.0	225.8	226.6	Sbd box	226.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
Z	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-5.16550144518E+03	Apriori delay (usec)	-5.16537571927E+03	Resid mbdelay (usec)	-7.25912E-04	+/-	1.0E-05
Sband delay (usec)	-5.16549475652E+03	Apriori clock (usec)	-2.1075212E+03	Resid sbdelay (usec)	-1.19037E-01	+/-	7.9E-05
Phase delay (usec)	-5.16537572125E+03	Apriori clockrate (us/s)	-6.2069187E-07	Resid phdelay (usec)	-1.98617E-06	+/-	6.8E-08
Delay rate (us/s)	9.02960783183E-01	Apriori rate (us/s)	9.02960503561E-01	Resid rate (us/s)	2.79621E-07	+/-	6.5E-10
Total phase (deg)	-41.4	Apriori accel (us/s/s)	-6.95718715383E-05	Resid phase (deg)	-210.8	+/-	1.1

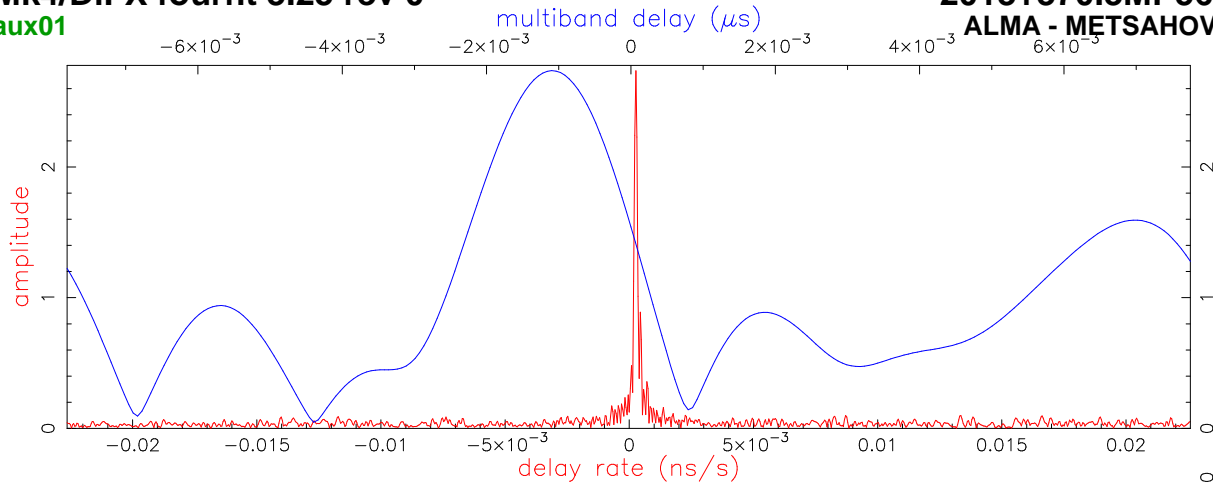
ph/seg (deg)	12.4	RMS	2.5	Theor.	2.973 +/- 0.027	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	4.4	Search (1024X32)	2.794	Amplitude	2.973 +/- 0.027	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	42.4	Inc. seg. avg.	2.966	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	25.6	Inc. frq. avg.	3.622	Inc. seg. avg.	2.966	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
A:	az 14.3 el 27.9 pa -163.6	Z:	az 280.0 el 38.3 pa 37.9	u, v (fr/asec)	-3291.835 -6498.805	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/c241d/v1/7mm/1234/No0500//AZ...3MP56K	Output file:	/Exps/c241d/v1/7mm/1234/No0500//AZ.Q.36.3MP56K	simultaneous interpolator				

Mk4/DiFX fourfit 3.25 rev 0

aux01

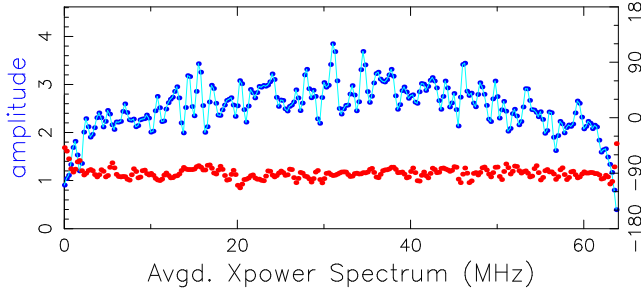
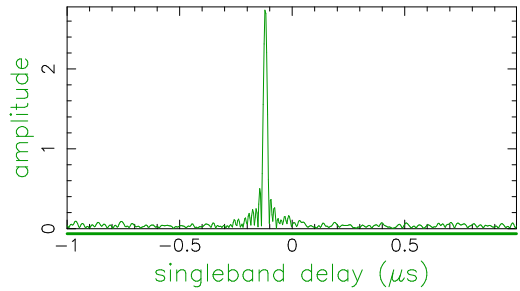
2013+370.3MP56K, No0500, AZ

ALMA - METSAHOV, fgroup Q, pol XR



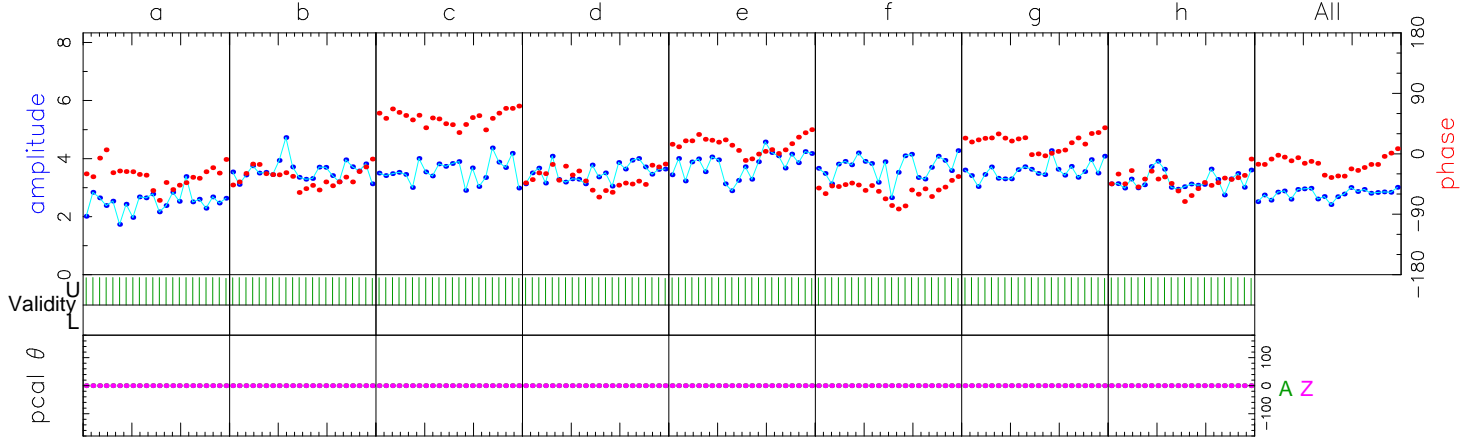
Fringe quality 6

SNR 101.9  
 Int time 179.947  
 Amp 2.778  
 Phase -194.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.119491  
 MBD -0.001061  
 Fringe rate (Hz)  
 0.012096  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151744  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	-32.2	-35.0	53.6	-37.0	13.5	-54.5	17.5	-40.3	Phase	-14.8
	2.4	3.5	3.5	3.4	3.7	3.6	3.5	3.2	Ampl.	3.4
	227.8	226.4	226.3	225.9	226.0	226.0	225.7	226.4	Sbd box	226.4
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UX	Q01UX	Q02UX	Q03UX	Q04UX	Q05UX	Q06UX	Q07UX	Chan ids	
Z	Q00UR	Q01UR	Q02UR	Q03UR	Q04UR	Q05UR	Q06UR	Q07UR	Tracks	

Group delay (usec) (SBD)	-5.16550177987E+03	Apriori delay (usec)	-5.16537571927E+03	Resid mbdelay (usec)	-1.06060E-03	+/-	1.1E-05
Sband delay (usec)	-5.16549521002E+03	Apriori clock (usec)	-2.1075212E+03	Resid sbdelay (usec)	-1.19491E-01	+/-	8.5E-05
Phase delay (usec)	-5.16537572022E+03	Apriori clockrate (us/s)	-6.2069187E-07	Resid phdelay (usec)	-9.50618E-07	+/-	7.2E-08
Delay rate (us/s)	9.02960783941E-01	Apriori rate (us/s)	9.02960503561E-01	Resid rate (us/s)	2.80380E-07	+/-	7.0E-10
Total phase (deg)	-25.3	Apriori accel (us/s/s)	-6.95718715383E-05	Resid phase (deg)	-194.8	+/-	1.1

ph/seg (deg)	11.4	RMS	2.6	Theor.	2.778 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	5.9	Search (1024X32)	2.646	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	40.7	Inc. seg. avg.	2.788	Inc. frq. avg.	3.352	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	25.0	Inc. frq. avg.	3.352	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)	-0.023 0.023
A:	az 14.3 el 27.9 pa -163.6	Z:	az 280.0 el 38.3 pa 37.9	u,v (fr/asec)	-3291.835 -6498.805	ion window (TEC)	0.00 0.00	simultaneous interpolator		

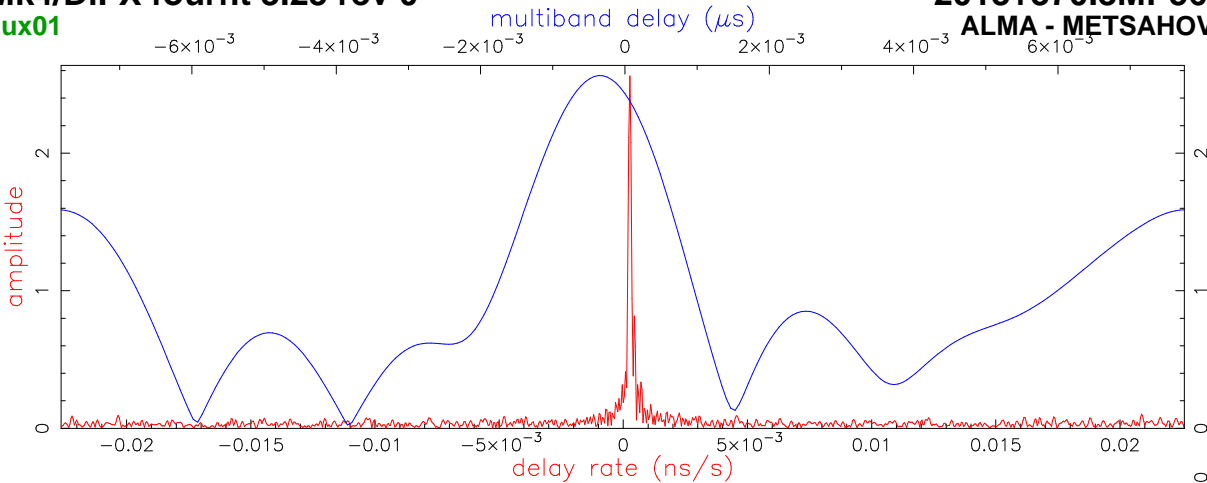
Control file: cf\_1234\_gmva Input file: /Exps/c241d/v1/7mm/1234/No0500/AZ..3MP56K Output file: /Exps/c241d/v1/7mm/1234/No0500/AZ.Q.53.3MP56K

Mk4/DiFX fourfit 3.25 rev 0

aux01

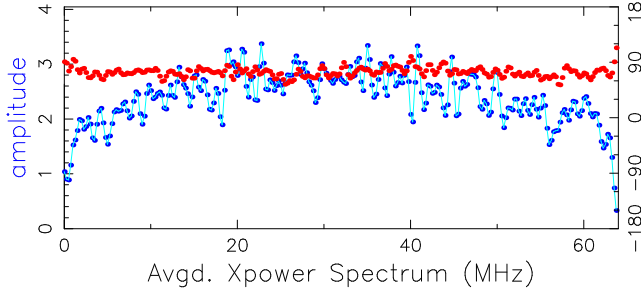
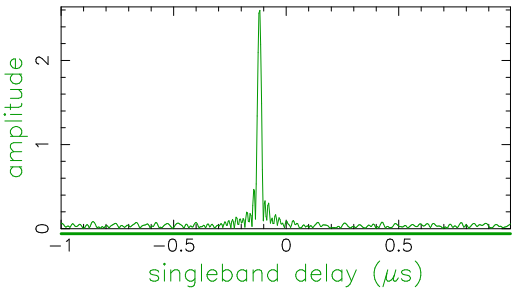
2013+370.3MP56K, No0500, AZ

ALMA - METSAHOV, fgroup Q, pol YL



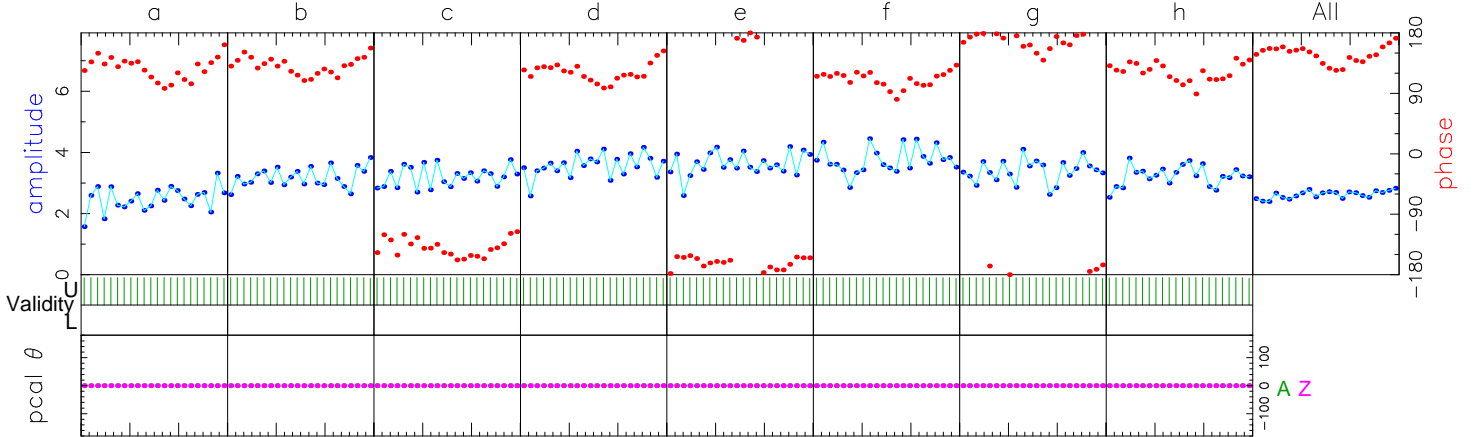
Fringe quality 5

SNR 96.8  
 Int time 179.947  
 Amp 2.638  
 Phase -32.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.118841  
 MBD -0.000297  
 Fringe rate (Hz)  
 0.012057  
 Ion TEC 0.000  
 Ref freq (MHz)  
 43140.0000  
 AP (sec) 0.512



Exp. c241d  
 Exper # 1234  
 Yr:day 2024:113  
 Start 094000.00  
 Stop 094300.22  
 FRT 094130.00  
 Corr/FF/build  
 2024:332:222845  
 2025:042:151747  
 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



	42912.00	42976.00	43040.00	43104.00	43168.00	43232.00	43296.00	43360.00	Freq (MHz)	All
	127.8	131.0	-139.0	121.2	-166.6	110.8	171.9	121.8	Phase	147.8
	2.4	3.1	3.1	3.5	3.5	3.7	3.3	3.1	Ampl.	3.2
	228.2	226.6	226.2	226.1	226.1	226.0	225.6	226.7	Sbd box	226.6
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
A	Q00UY	Q01UY	Q02UY	Q03UY	Q04UY	Q05UY	Q06UY	Q07UY	Chan ids	
Z	Q00UL	Q01UL	Q02UL	Q03UL	Q04UL	Q05UL	Q06UL	Q07UL	Tracks	

Group delay (usec) (SBD)	-5.16550101646E+03	Apriori delay (usec)	-5.16537571927E+03	Resid mbdelay (usec)	-2.97193E-04	+/-	1.1E-05
Sband delay (usec)	-5.16549456027E+03	Apriori clock (usec)	-2.1075212E+03	Resid sbdelay (usec)	-1.18841E-01	+/-	8.9E-05
Phase delay (usec)	-5.16537570975E+03	Apriori clockrate (us/s)	-6.2069187E-07	Resid phdelay (usec)	9.51963E-06	+/-	7.6E-08
Delay rate (us/s)	9.02960783055E-01	Apriori rate (us/s)	9.02960503561E-01	Resid rate (us/s)	2.79494E-07	+/-	7.3E-10
Total phase (deg)	-222.7	Apriori accel (us/s/s)	-6.95718715383E-05	Resid phase (deg)	-32.2	+/-	1.2

ph/seg (deg)	12.3	Theor.	2.8	Amplitude	2.638 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	4.6		4.8	Search (1024X32)	2.494	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	43.7		1.7	Inc. seg. avg.	2.619	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	26.3		2.9	Inc. frq. avg.	3.220	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.023 0.023	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 14.3 el 27.9 pa -163.6      Z: az 280.0 el 38.3 pa 37.9      u,v (fr/asec) -3291.835 -6498.805      simultaneous interpolator

Control file: cf\_1234\_gmva      Input file: /Exps/c241d/v1/7mm/1234/No0500/AZ...3MP56K      Output file: /Exps/c241d/v1/7mm/1234/No0500/AZ.Q.71.3MP56K