

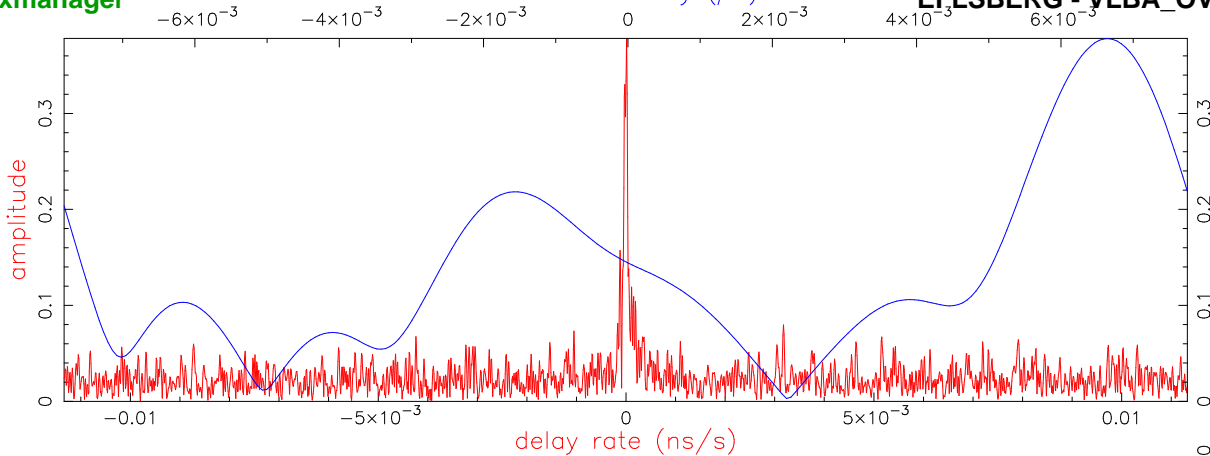
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, Bo

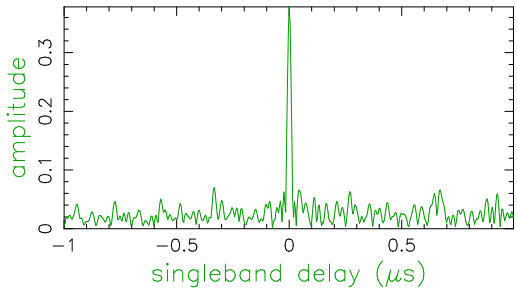
EFLSBERG - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

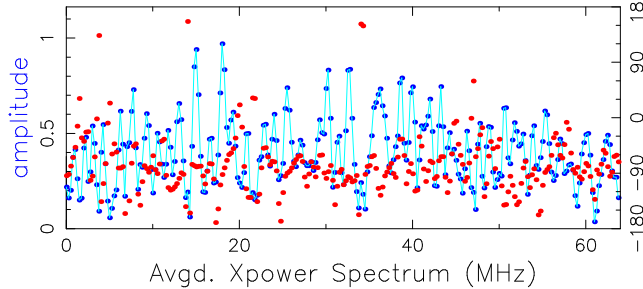


Fringe quality 8

SNR 19.6
 Int time 358.469
 Amp 0.378
 Phase -155.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.000333
 MBD 0.006651
 Fringe rate (Hz)
 0.000666
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

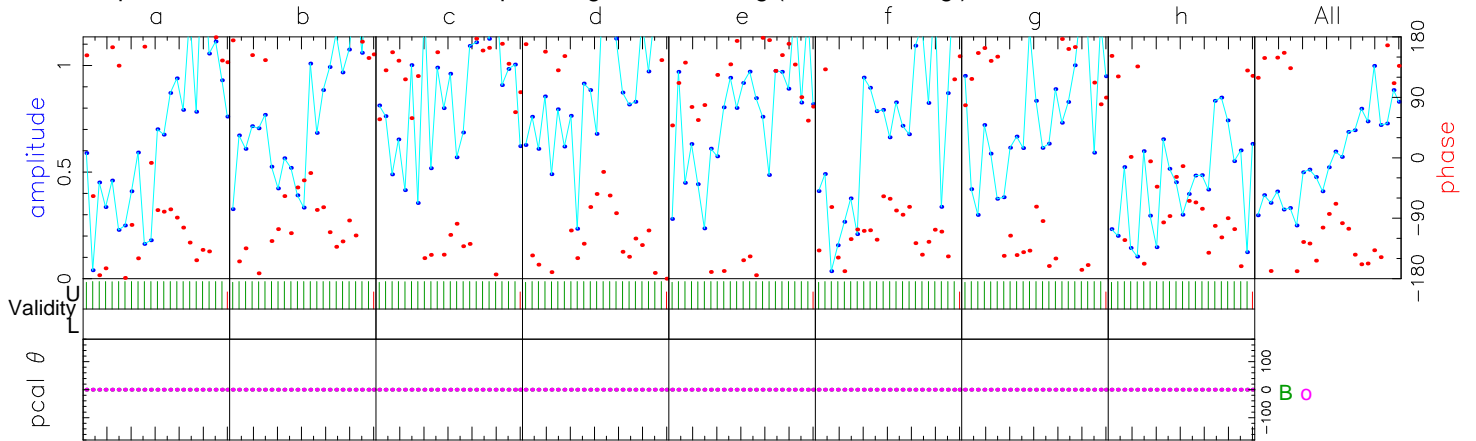


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040613
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-9.21013202994E+03									
Sband delay (usec)	-9.21013834823E+03									
Phase delay (usec)	-9.21013868600E+03									
Delay rate (us/s)	-1.21695272306E+00									
Total phase (deg)			-148.5							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal theta										
RMS	50.5	14.0								
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)	50.5	14.0								
amp/seg (%)	72.3	24.5								
ph/frq (deg)	41.9	8.3								
amp/frq (%)	30.1	14.4								
B: az 301.2 el 29.2 pa 46.7										
o: az 69.9 el 64.9 pa -88.9										
u,v (fr/asec) 9417.143 5297.206										
Control file: cf_1234_gmva										
Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Bo..11VBZA										
Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Bo.W.18.11VBZA										

simultaneous interpolator

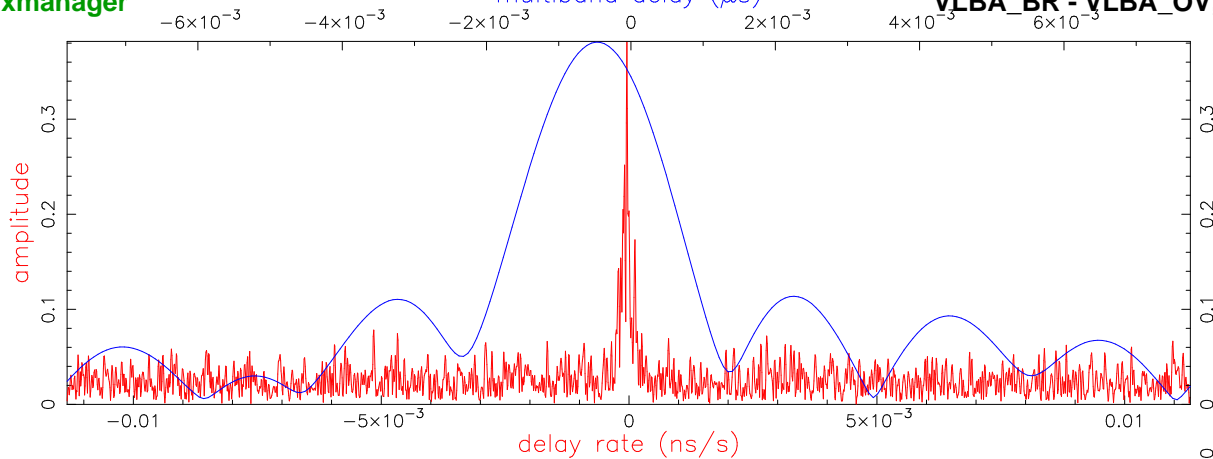
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, bo

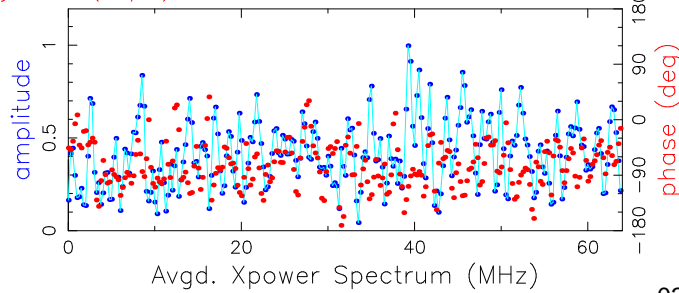
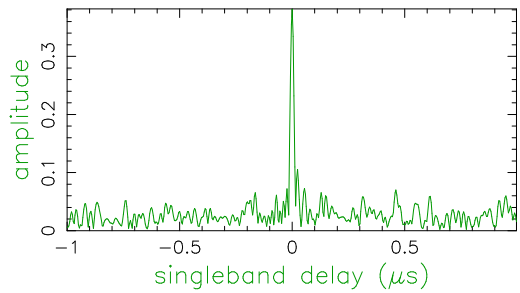
VLBA_BR - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)



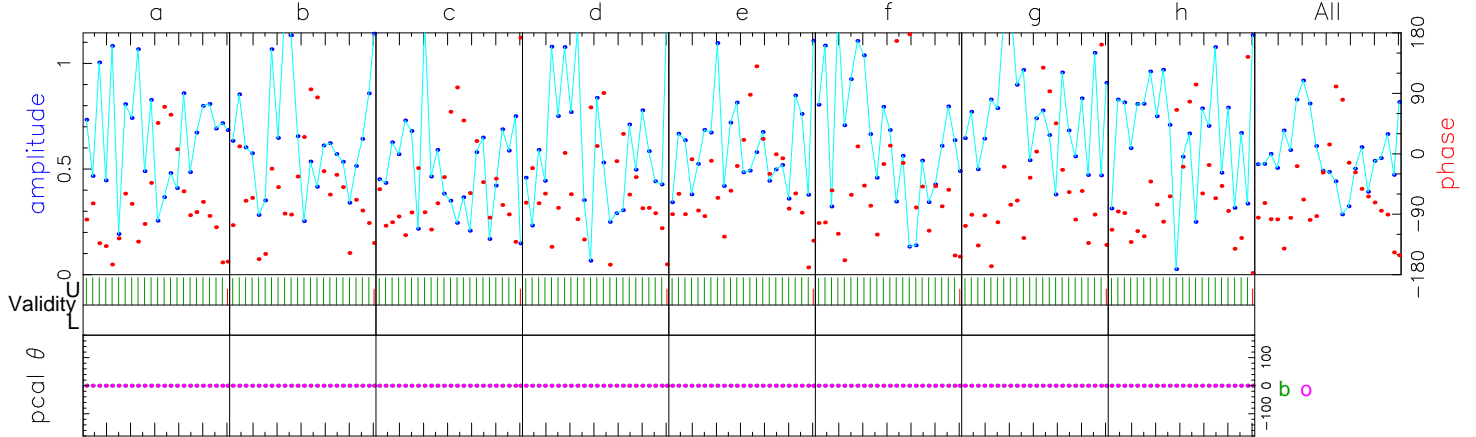
Fringe quality 9

SNR 19.7
 Int time 357.826
 Amp 0.382
 Phase -76.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000567
 MBD -0.000482
 Fringe rate (Hz)
 -0.003957
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040615
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		5.46475740774E+01			5.46480564380E+01					
Sband delay (usec)		5.46474891880E+01			-2.3101753E+01					
Phase delay (usec)		5.46480539569E+01			9.9999998E-08					
Delay rate (us/s)		-6.11821502610E-02			-6.11821043252E-02					
Total phase (deg)			132.4		1.00430064249E-05					
ph/seg (deg)	64.0	13.9		0.379						
amp/seg (%)	63.1	24.3		0.000						
ph/frq (deg)	14.3	8.2		0.551						
amp/frq (%)	8.8	14.3		0.386						
b: az 92.9 el 65.5 pa -62.9										
o: az 69.9 el 64.9 pa -88.9										
u,v (fr/asec)					483.335	1620.732				

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/bo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/bo.W.28.11VBZA

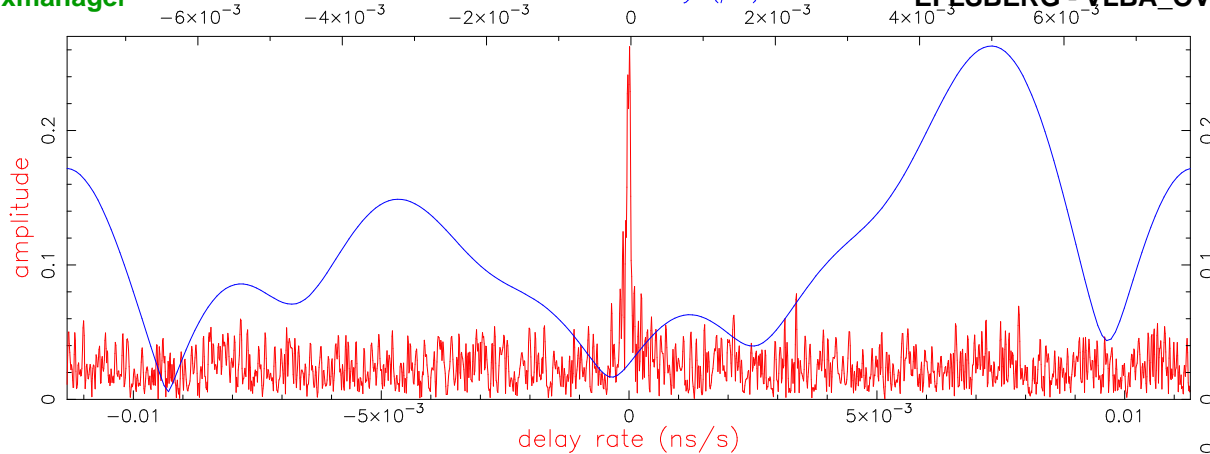
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, Bo

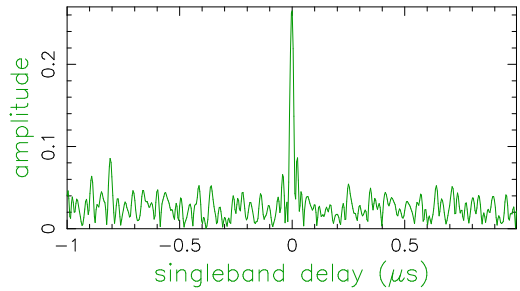
EFLSBERG - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

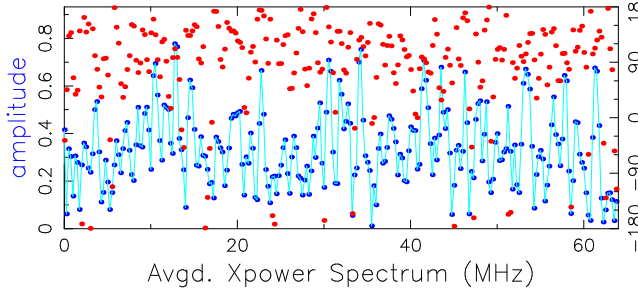


Fringe quality 9

SNR 14.0
 Int time 358.469
 Amp 0.270
 Phase 33.7
 PFD 1.2e-35
 Delays (us)
 SBD -0.001742
 MBD 0.005056
 Fringe rate (Hz)
 0.000563
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

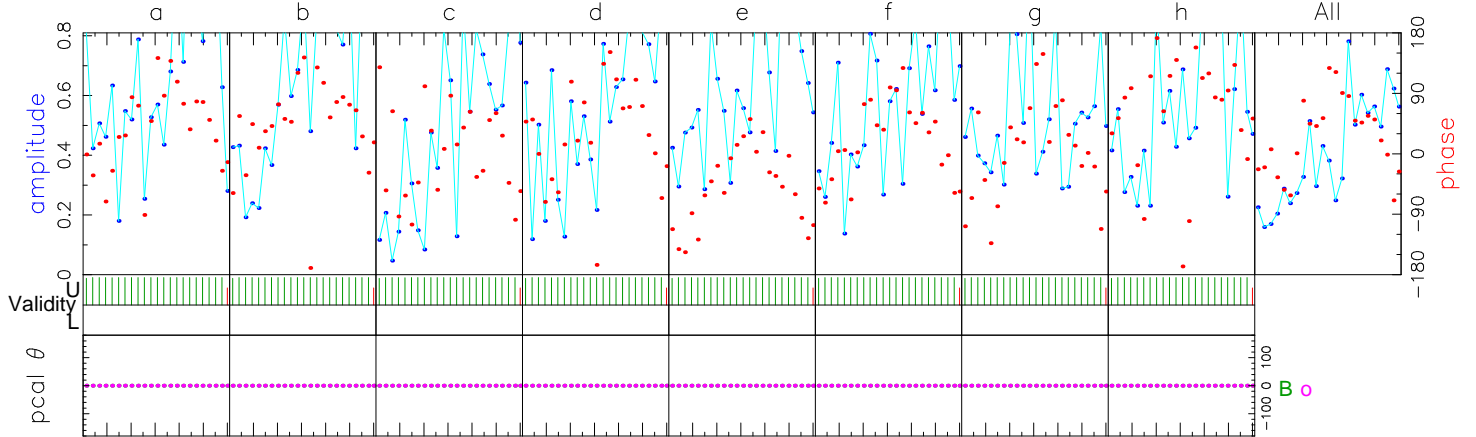


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040616
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-9.21013362544E+03									
Sband delay (usec)	-9.21014042298E+03									
Phase delay (usec)	-9.21013867990E+03									
Delay rate (us/s)	-1.21695272426E+00									
Total phase (deg)			-319.1							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
RMS	55.6	19.7								
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
ph/seg (deg)	48.0	11.6								
amp/seg (%)	39.1	20.2								
ph/frq (deg)	48.0	11.6								
amp/frq (%)	39.1	20.2								
B: az 301.2 el 29.2 pa 46.7										
o: az 69.9 el 64.9 pa -88.9										
u,v (fr/asec) 9417.143 5297.206										
Control file: cf_1234_gmva										
Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Bo..11VBZA										
Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Bo.W.37.11VBZA										

simultaneous interpolator

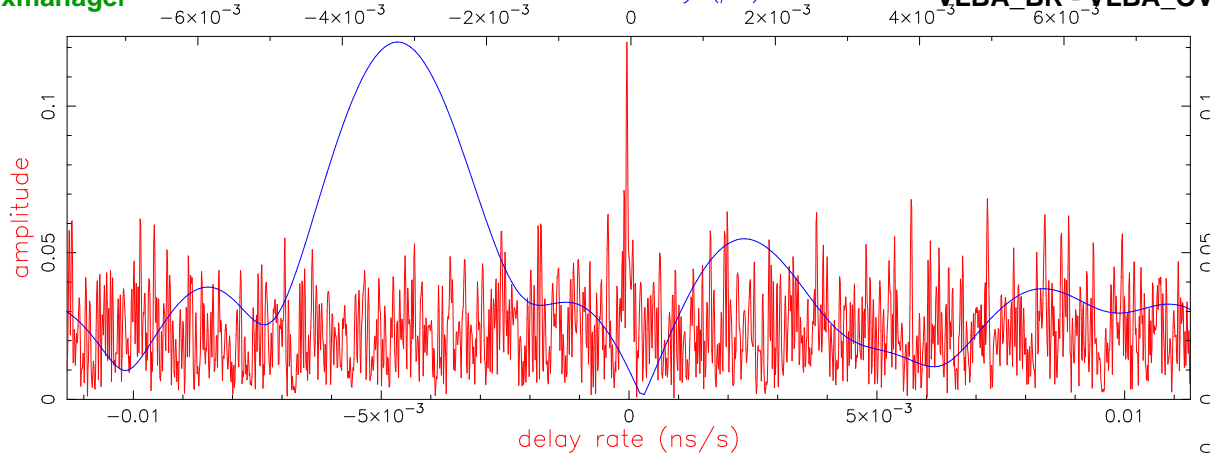
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, bo

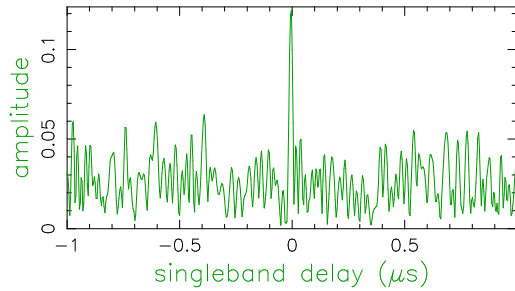
VLBA_BR - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

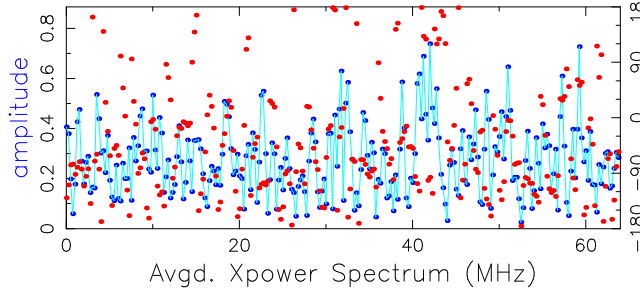


Fringe quality 0

SNR 6.4
 Int time 357.826
 Amp 0.124
 Phase -99.4
 PFD 4.1e-02
 Delays (us)
 SBD -0.005447
 MBD -0.003269
 Fringe rate (Hz)
 -0.003549
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

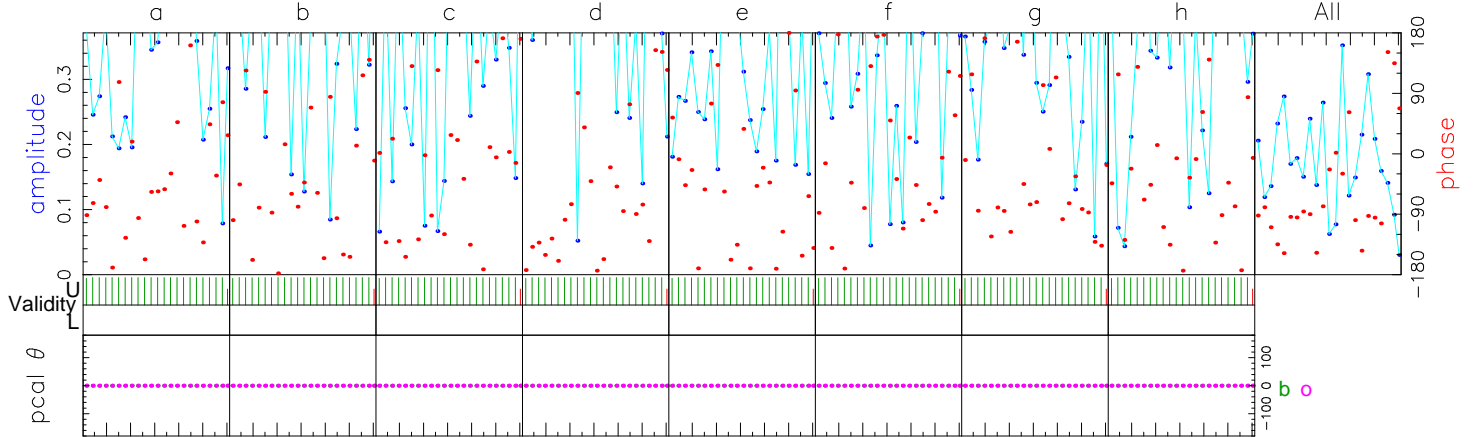


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040618
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec

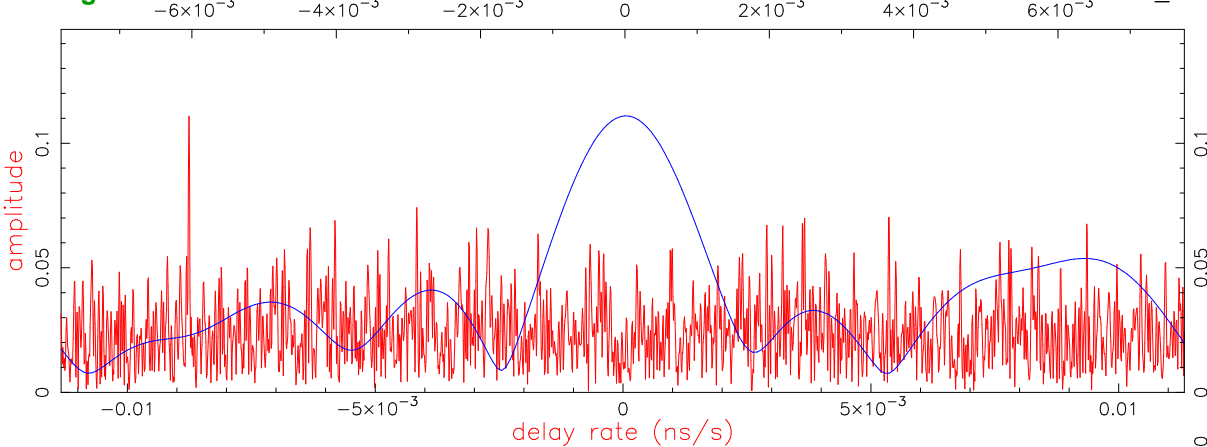


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-73.4	-107.2	-92.4	-128.1	-104.1	-104.6	-101.5	-69.3	Phase	-99.4
	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	372.9	453.1	452.6	255.7	447.5	449.8	6.7	103.4	Sbd box	255.6
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	5.46447874211E+01		Apriori delay (usec)		5.46480564380E+01		Resid mbdelay (usec)		-3.26902E-03	+/- 1.7E-04
Sband delay (usec)	5.46426094380E+01		Apriori clock (usec)		-2.3101753E+01		Resid sbdelay (usec)		-5.44700E-03	+/- 1.3E-03
Phase delay (usec)	5.46480532314E+01		Apriori clockrate (us/s)		9.999998E-08		Resid phdelay (usec)		-3.20669E-06	+/- 5.8E-07
Delay rate (us/s)	-6.11821455257E-02		Apriori rate (us/s)		-6.11821043252E-02		Resid rate (us/s)		-4.12005E-08	+/- 2.8E-09
Total phase (deg)	109.9		Apriori accel (us/s/s)		1.00430064249E-05		Resid phase (deg)		-99.4	+/- 17.9

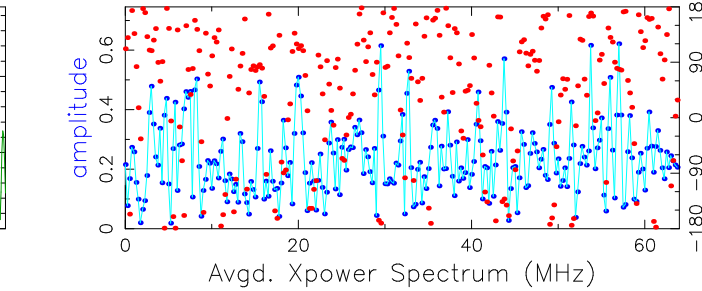
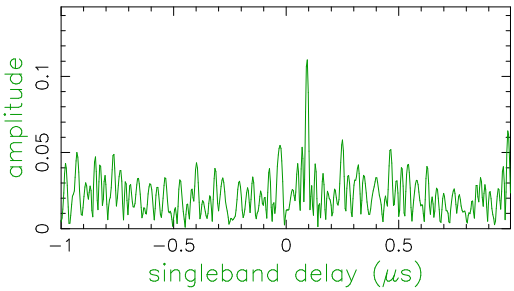
ph/seg (deg) 66.7 42.9 Search (2048X32) 0.117 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.3 74.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.7 25.3 Inc. seg. avg. 0.139 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 42.6 44.2 Inc. frq. avg. 0.119 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 92.9 el 65.5 pa -62.9 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 483.335 1620.732 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/bo..1VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/bo.W.46.1VBZA

multiband delay (μ s)

Fringe quality 0

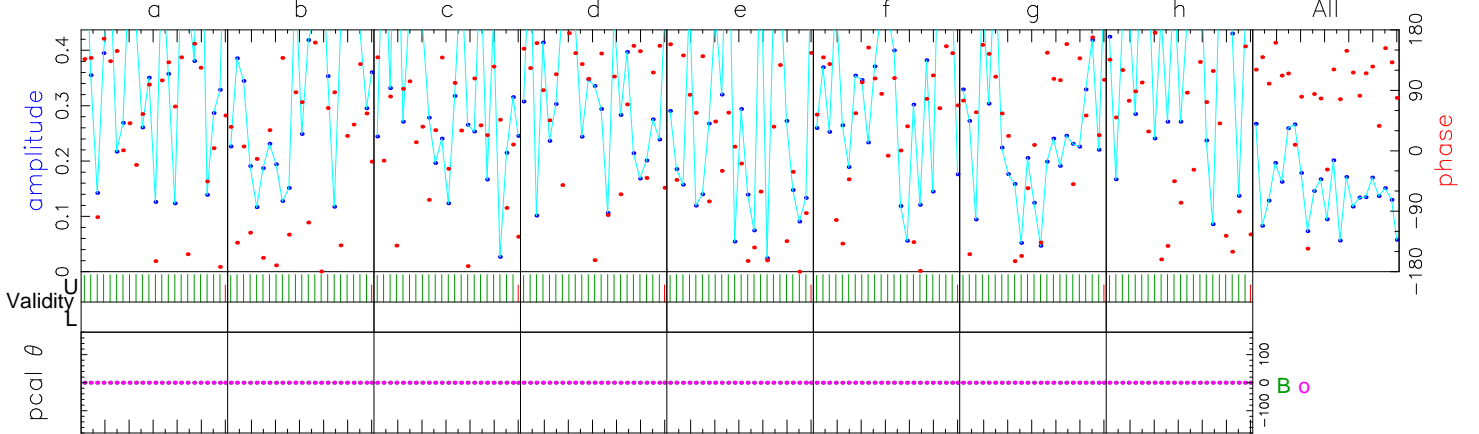


SNR 5.8
 Int time 358.469
 Amp 0.146
 Phase 107.1
 PFD 7.7e-01
 Delays (us)
 SBD 0.092436
 MBD -0.000040
 Fringe rate (Hz)
 -0.755284
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040620
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

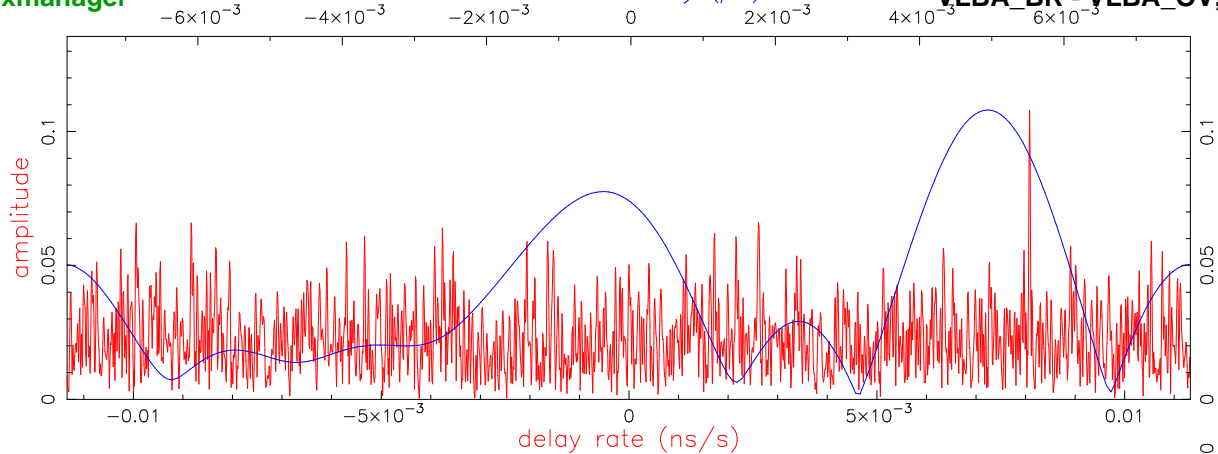
Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-9.21004497081E+03									
Sband delay (usec)	-9.21004624448E+03									
Phase delay (usec)	-9.21013867753E+03									
Delay rate (us/s)	-1.21696149889E+00									
Total phase (deg)		-245.6								
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)									107.1	+/- 19.7
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

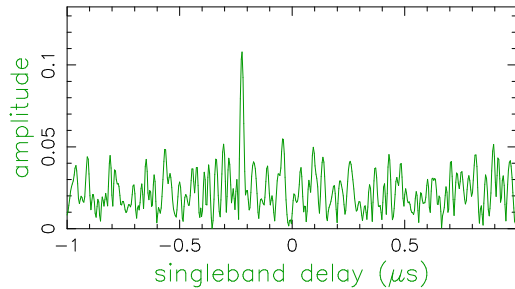
B: az 301.2 el 29.2 pa 46.7 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 9417.143 5297.206 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Bo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Bo.W57.11VBZA

multiband delay (μ s)

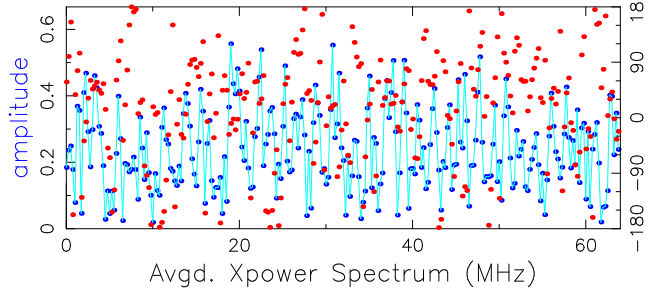


Fringe quality 0

SNR 5.6
 Int time 357.826
 Amp 0.136
 Phase -70.4
 PFD 9.9e-01
 Delays (us)
 SBD -0.223813
 MBD 0.004905
 Fringe rate (Hz)
 0.696975
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

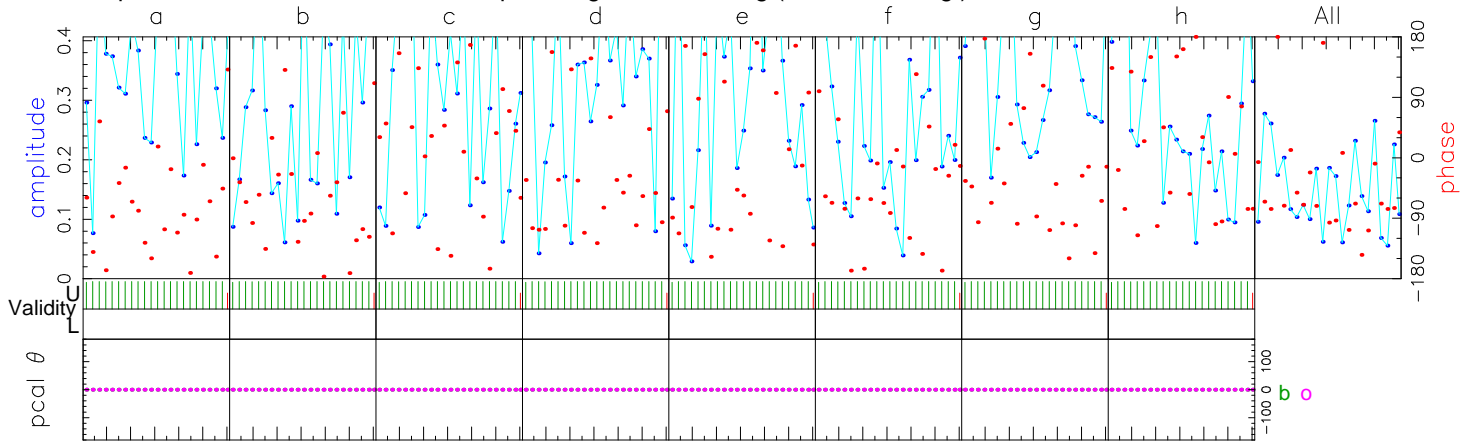


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040622
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-73.7	-86.5	11.7	-62.7	-150.6	-38.4	-69.8	-64.7	Phase	-70.4
	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	Ampl.	0.1
	202.4	126.7	465.7	199.9	223.6	438.0	23.9	35.8	Sbd box	199.7
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	5.44185861542E+01	Apriori delay (usec)	5.46480564380E+01	Resid mbdelay (usec)	4.90472E-03	+/-	1.9E-04
Sband delay (usec)	5.44242439380E+01	Apriori clock (usec)	-2.3101753E+01	Resid sbdelay (usec)	-2.23813E-01	+/-	1.5E-03
Phase delay (usec)	5.46480541670E+01	Apriori clockrate (us/s)	9.9999998E-08	Resid phdelay (usec)	-2.27106E-06	+/-	6.6E-07
Delay rate (us/s)	-6.11740131349E-02	Apriori rate (us/s)	-6.11821043252E-02	Resid rate (us/s)	8.09119E-06	+/-	3.2E-09
Total phase (deg)	138.9	Apriori accel (us/s/s)	1.00430064249E-05	Resid phase (deg)	-70.4	+/-	20.3

ph/seg (deg)	54.0	Theor.	48.8	Amplitude	0.136 +/- 0.024	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	73.5	Search (2048X32)	0.106	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	49.3	Inc. seg. avg.	0.138	Inc. frq. avg.	0.145	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	43.9	Inc. frq. avg.	0.145	Sample rate(MSamp/s): 128	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite

b: az 92.9 el 65.5 pa -62.9 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 483.335 1620.732 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/bo..1VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/bo.W.65.1VBZA

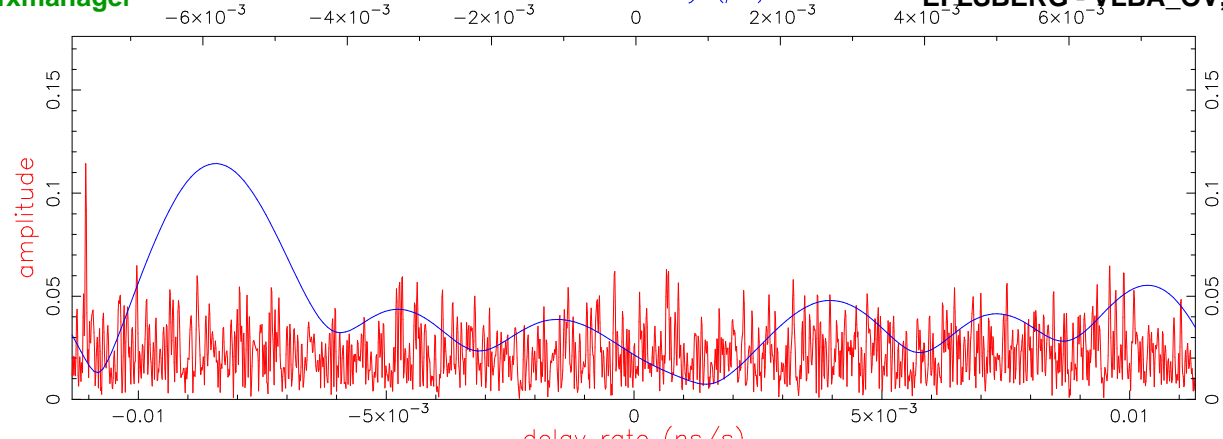
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

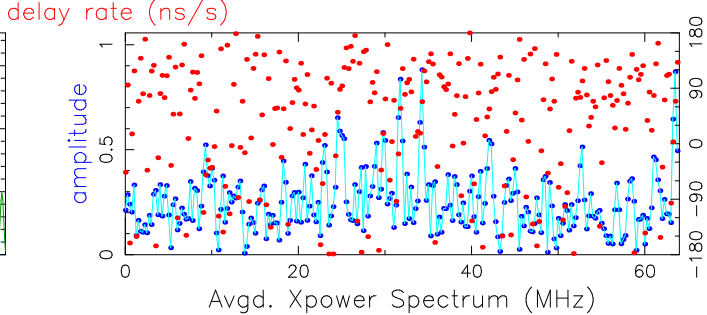
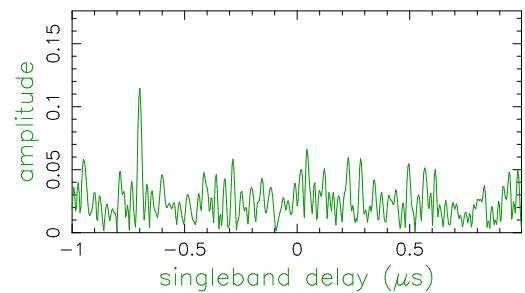
3C84.1VBZA, No0277, Bo

EFLSBERG - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

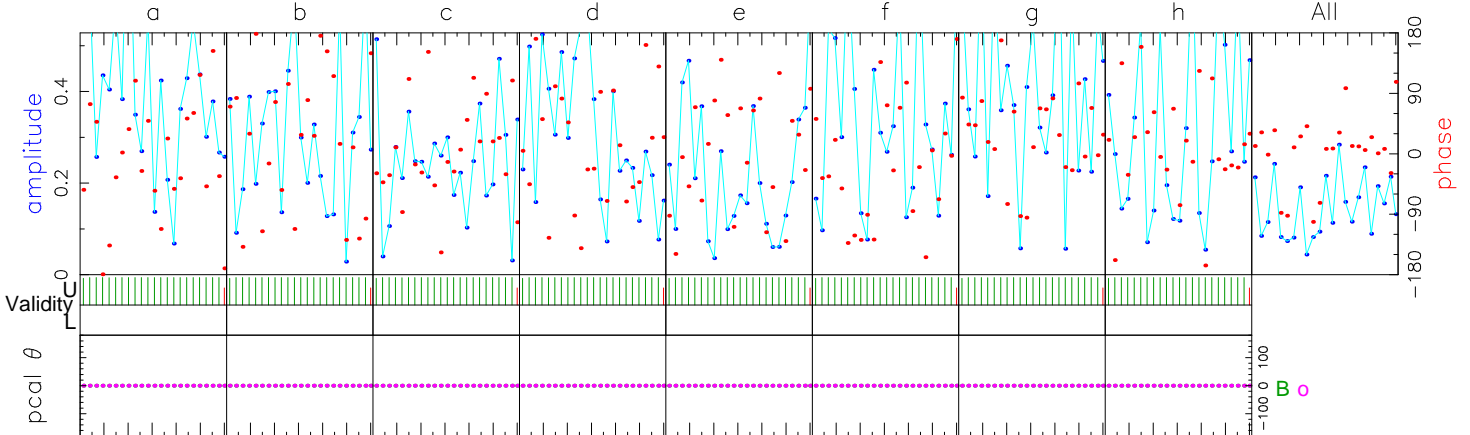


Fringe quality 0
 SNR 5.9
 Int time 358.469
 Amp 0.176
 Phase 10.9
 PFD 5.3e-01
 Delays (us)
 SBD -0.699825
 MBD -0.005826
 Fringe rate (Hz)
 -0.954277
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040623
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	24.2	18.8	-3.9	-3.5	12.6	-35.5	31.9	4.6	Phase	10.9
	0.2	0.1	0.2	0.1	0.1	0.1	0.4	0.3	Ampl.	0.2
	277.0	345.0	289.2	491.2	204.6	13.7	78.8	77.6	Sbd box	77.8
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-9.21083200669E+03		Apriori delay (usec)		-9.21013868098E+03		Resid mbdelay (usec)		-5.82571E-03	+/- 1.8E-04
Sband delay (usec)	-9.21083850598E+03		Apriori clock (usec)		-1.1303248E+01		Resid sbdelay (usec)		-6.99825E-01	+/- 1.5E-03
Phase delay (usec)	-9.21013868063E+03		Apriori clockrate (us/s)		-9.9999998E-08		Resid phdelay (usec)		3.50082E-07	+/- 6.2E-07
Delay rate (us/s)	-1.21696380901E+00		Apriori rate (us/s)		-1.21695273080E+00		Resid rate (us/s)		-1.10782E-05	+/- 3.0E-09
Total phase (deg)			Apriori accel (us/s/s)		6.14149013916E-05		Resid phase (deg)		10.9	+/- 19.3

ph/seg (deg) 50.6 46.3 Amplitude 0.176 +/- 0.030 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 63.5 80.8 Search (2048X32) 0.110 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.5 27.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 56.3 47.7 Inc. seg. avg. 0.170 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 B: az 301.2 el 29.2 pa 46.7 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 9417.143 5297.206 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Bo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Bo.W.76.11VBZA simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

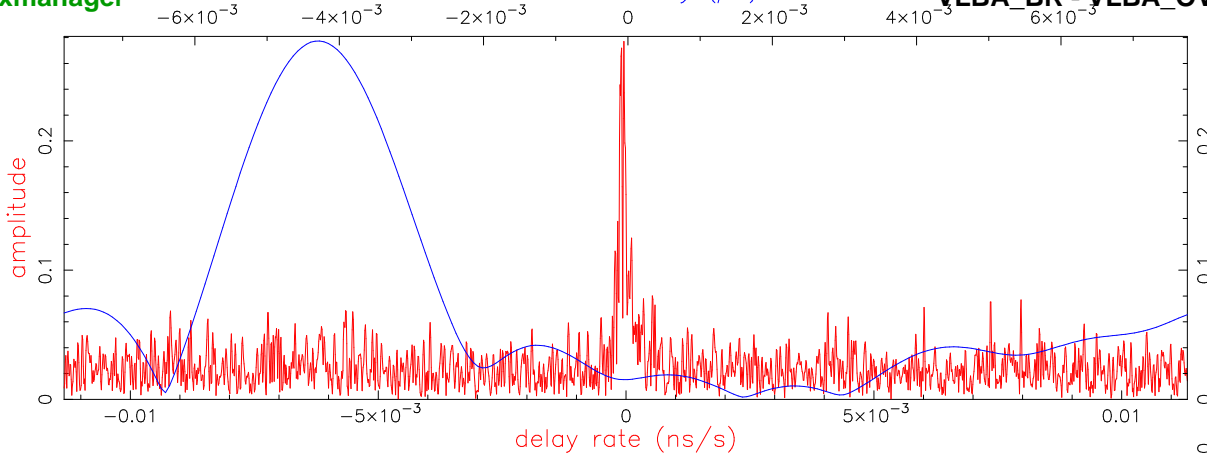
fxmanager

3C84.1VBZA, No0277, bo

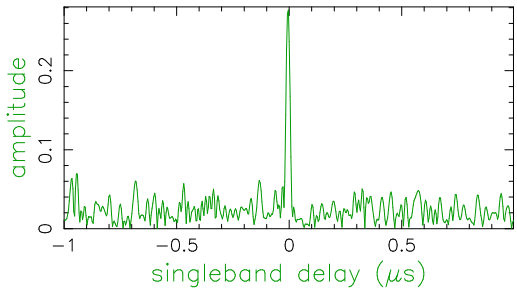
VLBA_BR - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

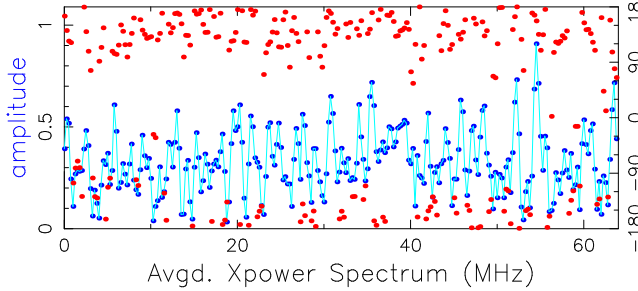
Fringe quality 9



SNR 14.5
 Int time 357.826
 Amp 0.281
 Phase 143.5
 PFD 4.6e-39
 Delays (us)
 SBD -0.005503
 MBD -0.004356
 Fringe rate (Hz)
 -0.003896
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

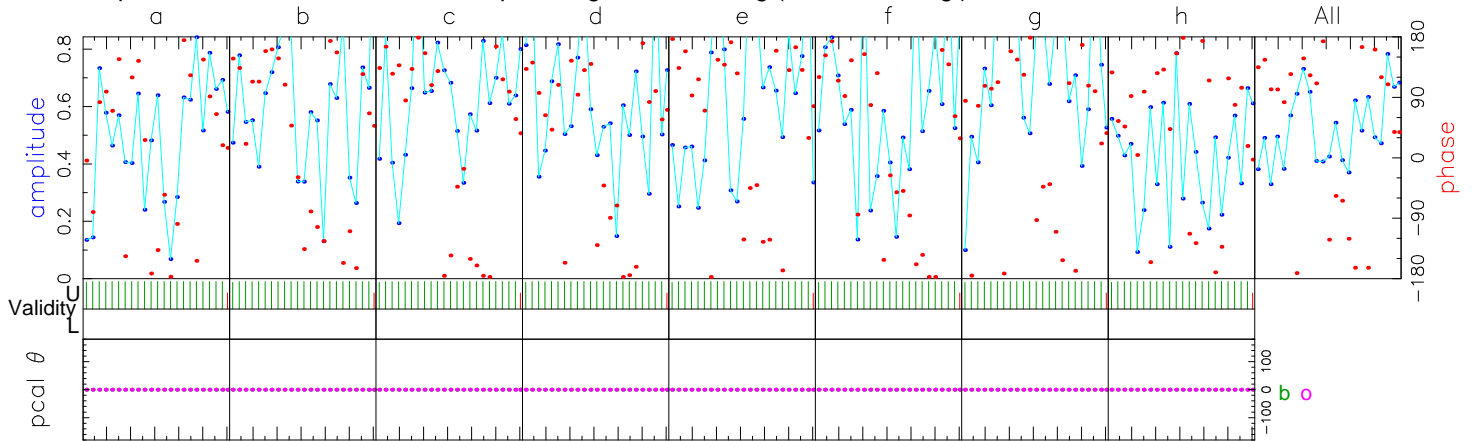


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040612
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

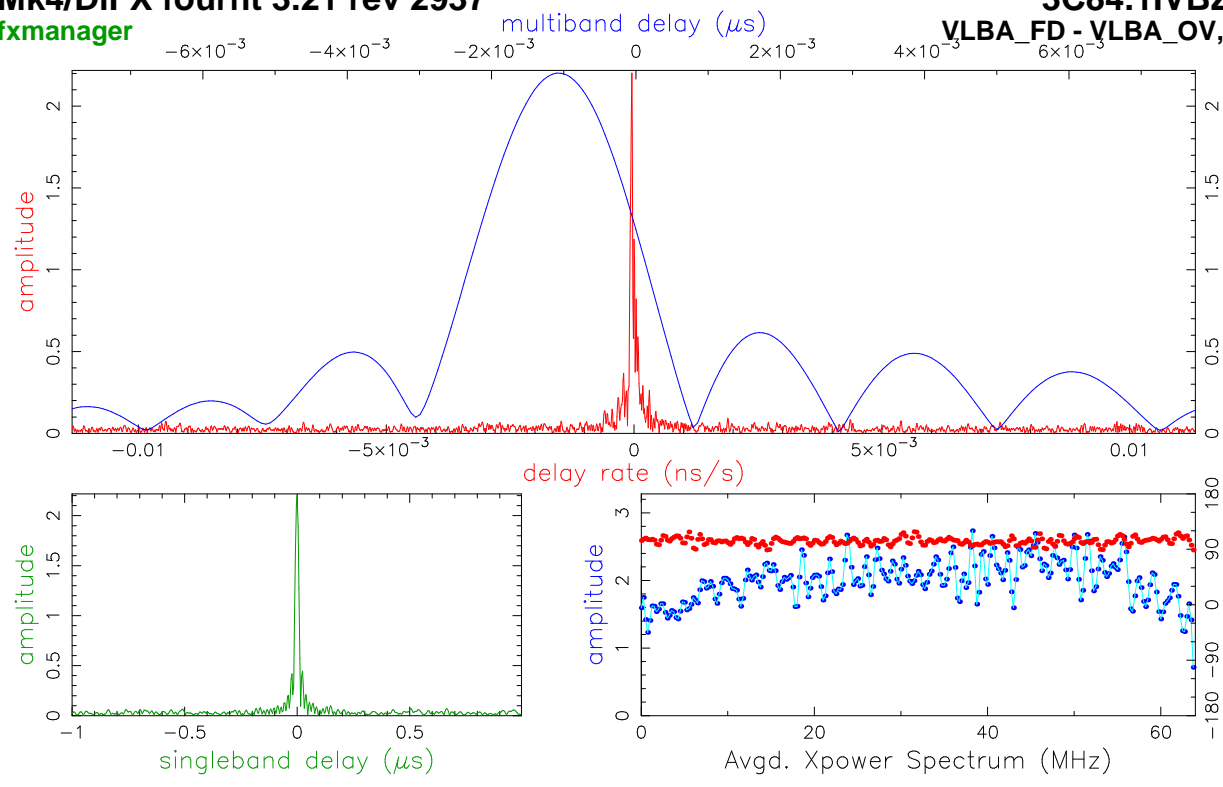
Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All				
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0						
b	1000	1000	1000	1000	1000	1000	1000	1000						
o	1000	1000	1000	1000	1000	1000	1000	1000						
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0						
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0						
b	1000	1000	1000	1000	1000	1000	1000	1000						
o	1000	1000	1000	1000	1000	1000	1000	1000						
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL						
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL						
Group delay (usec)(sbd)	5.46437006086E+01		Apriori delay (usec)		5.46480564380E+01		Resid mbdelay (usec)		-4.35583E-03	+/- 7.5E-05				
Sband delay (usec)	5.46425539380E+01		Apriori clock (usec)		-2.3101753E+01		Resid sbdelay (usec)		-5.50250E-03	+/- 5.9E-04				
Phase delay (usec)	5.46480610668E+01		Apriori clockrate (us/s)		9.9999998E-08		Resid phdelay (usec)		4.62874E-06	+/- 2.5E-07				
Delay rate (us/s)	-6.11821495489E-02		Apriori rate (us/s)		-6.11821043252E-02		Resid rate (us/s)		-4.52237E-08	+/- 1.2E-09				
Total phase (deg)	352.9		Apriori accel (us/s/s)		1.00430064249E-05		Resid phase (deg)		143.5	+/- 7.9				
ph/seg (deg)	RMS 68.1	Theor. 18.9	Amplitude 0.281 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5							
amp/seg (%)	97.4	33.0	Search (2048X32) 0.275		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000				
ph/frq (deg)	14.4	11.2	Interp. 0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)		-0.008	0.008		
amp/frq (%)	25.0	19.5	Inc. seg. avg. 0.497		Sample rate(MISamp/s): 128		dr window (ns/s)		-0.011		0.011			
			Inc. frq. avg. 0.278		Data rate(Mb/s): 2048		nlags: 256		t_cohere infinite		ion window (TEC)		0.00	0.00

b: az 92.9 el 65.5 pa -62.9 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 483.335 1620.732 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/bo..1VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/bo.W.9.1VBZA

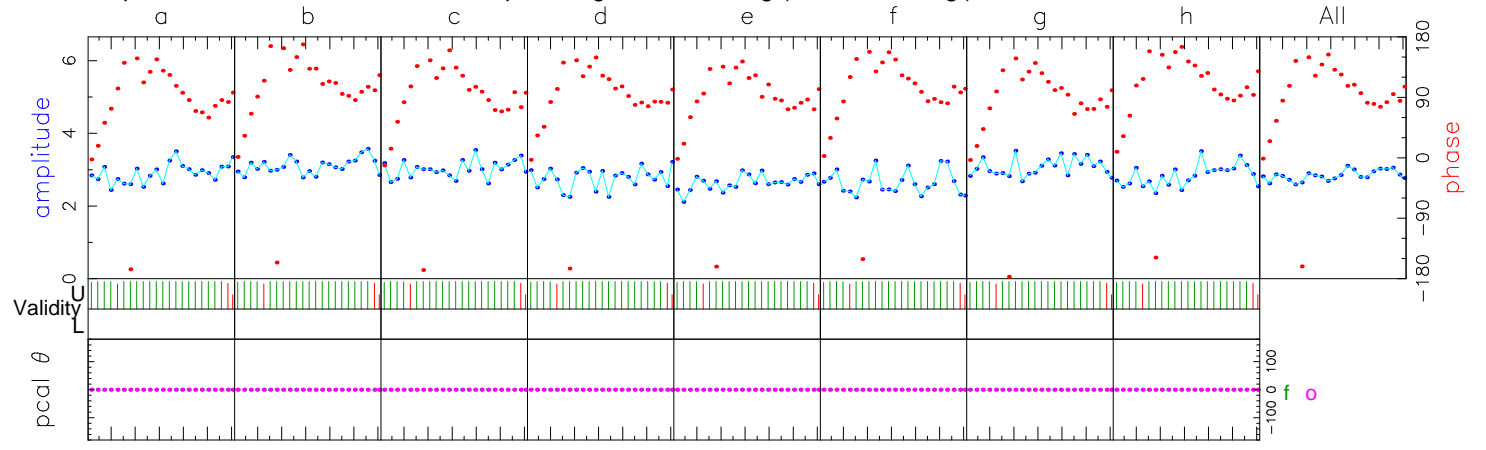


Fringe quality 6

SNR 114.2
Int time 354.252
Amp 2.218
Phase 102.8
PFD 0.0e+00
Delays (us)
SBD -0.001112
MBD -0.001096
Fringe rate (Hz)
-0.004295
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074502.56
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040632
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



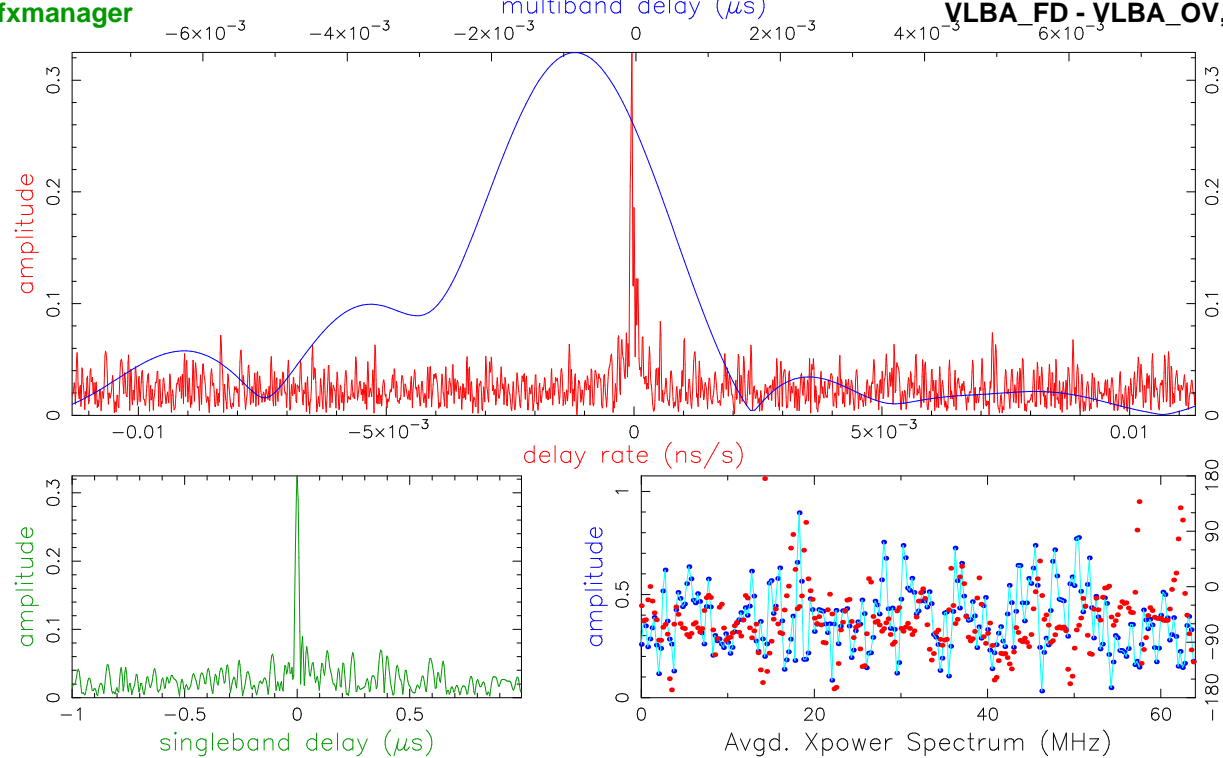
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	696/0	696/0	696/0	696/0	696/0	696/0	696/0	696/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	9.0896662221E+02		Apriori delay (usec)		9.08967718707E+02		Resid mbdelay (usec)		-1.09650E-03	+/- 9.5E-06
Sband delay (usec)	9.08966606957E+02		Apriori clock (usec)		-1.3490761E+01		Resid sbdelay (usec)		-1.11175E-03	+/- 7.5E-05
Phase delay (usec)	9.08967722021E+02		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		3.31418E-06	+/- 3.2E-08
Delay rate (us/s)	-1.89215416171E-01		Apriori rate (us/s)		-1.89215366308E-01		Resid rate (us/s)		-4.98626E-08	+/- 1.6E-10
Total phase (deg)	207.0		Apriori accel (us/s/s)		-1.20470861873E-05		Resid phase (deg)		102.8	+/- 1.0
ph/seg (deg)	RMS 42.5	Theor. 2.4	Amplitude 2.218 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-1.000 1.000
amp/seg (%)	28.9	4.2	Search (2048X32) 2.119		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	8.5	1.4	Interp. 0.000		Bits/sample: 2x2		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011
amp/frq (%)	5.7	2.5	Inc. seg. avg. 2.842		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00 0.00
f: az 47.8 el 71.9 pa -120.4	o: az 69.9 el 64.9 pa -88.9		u,v (fr/asec) 1429.527 -1485.307						simultaneous interpolator	
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/fo..1VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/fo.W.111.1VBZA										

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, fo

VLBA_FD - VLBA_OV, fgroup W, pol LR

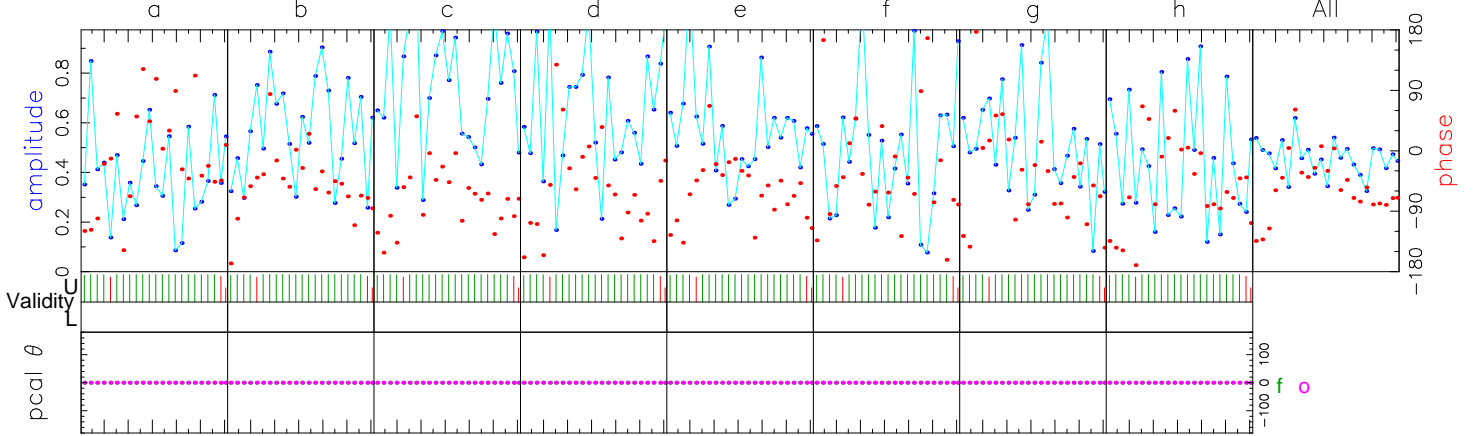


Fringe quality 9

SNR 16.7
 Int time 354.252
 Amp 0.325
 Phase -54.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.000236
 MBD -0.000852
 Fringe rate (Hz)
 -0.004249
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

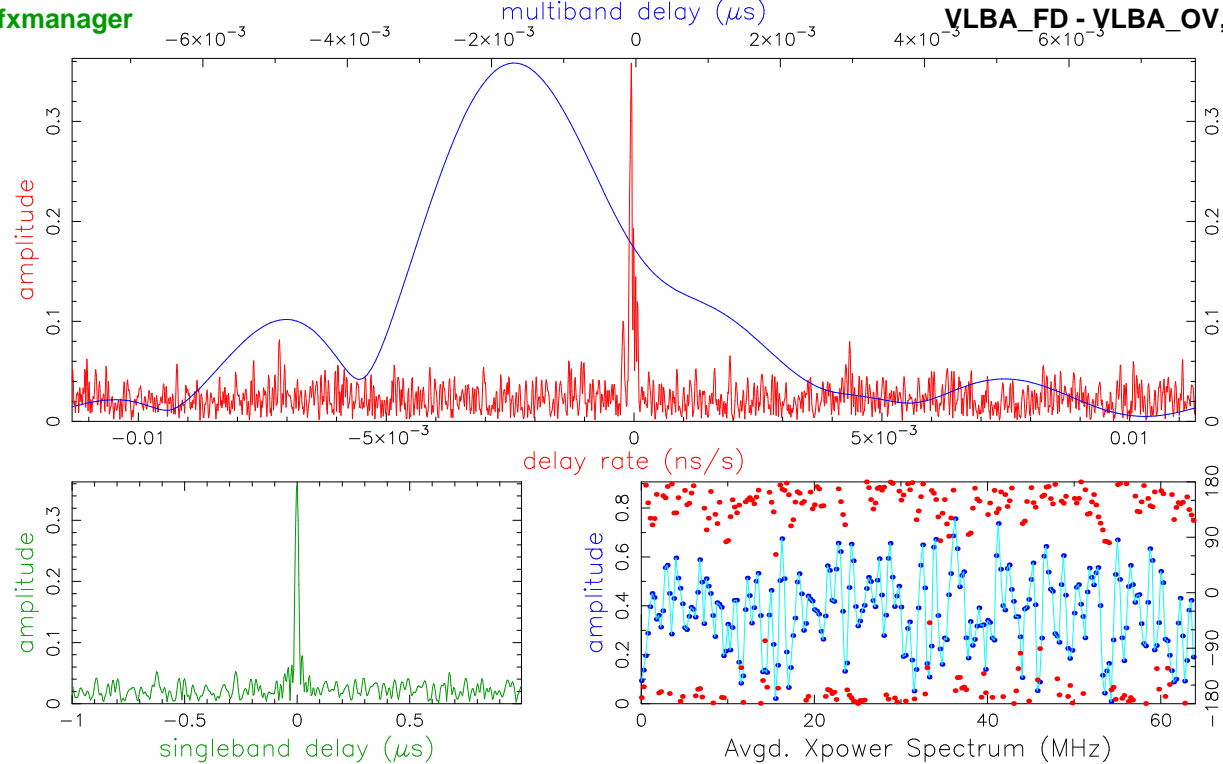
Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074502.56
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040635
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-19.7	-47.0	-65.3	-64.0	-63.6	-56.4	-40.6	-42.9	Phase	-54.1
	0.2	0.4	0.5	0.4	0.4	0.3	0.3	0.2	Ampl.	0.3
	417.3	256.4	257.1	256.7	257.2	256.3	257.3	257.4	Sbd box	256.9
U/L	696/0	696/0	696/0	696/0	696/0	696/0	696/0	696/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.08966866860E+02		Apriori delay (usec)		9.08967718707E+02		Resid mbdelay (usec)		-8.51847E-04	+/- 6.5E-05
Sband delay (usec)	9.08967482207E+02		Apriori clock (usec)		-1.3490761E+01		Resid sbdelay (usec)		-2.36500E-04	+/- 5.2E-04
Phase delay (usec)	9.08967716963E+02		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-1.74431E-06	+/- 2.2E-07
Delay rate (us/s)	-1.89215415635E-01		Apriori rate (us/s)		-1.89215366308E-01		Resid rate (us/s)		-4.93269E-08	+/- 1.1E-09
Total phase (deg)	50.1		Apriori accel (us/s/s)		-1.20470861873E-05		Resid phase (deg)		-54.1	+/- 6.9

ph/seg (deg) 45.0 16.4 Search (2048X32) 0.311 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 46.0 28.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.6 9.7 Inc. seg. avg. 0.439 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.1 16.9 Inc. frq. avg. 0.328 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 47.8 el 71.9 pa -120.4 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 1429.527 -1485.307 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/fo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/fo.W.130.11VBZA

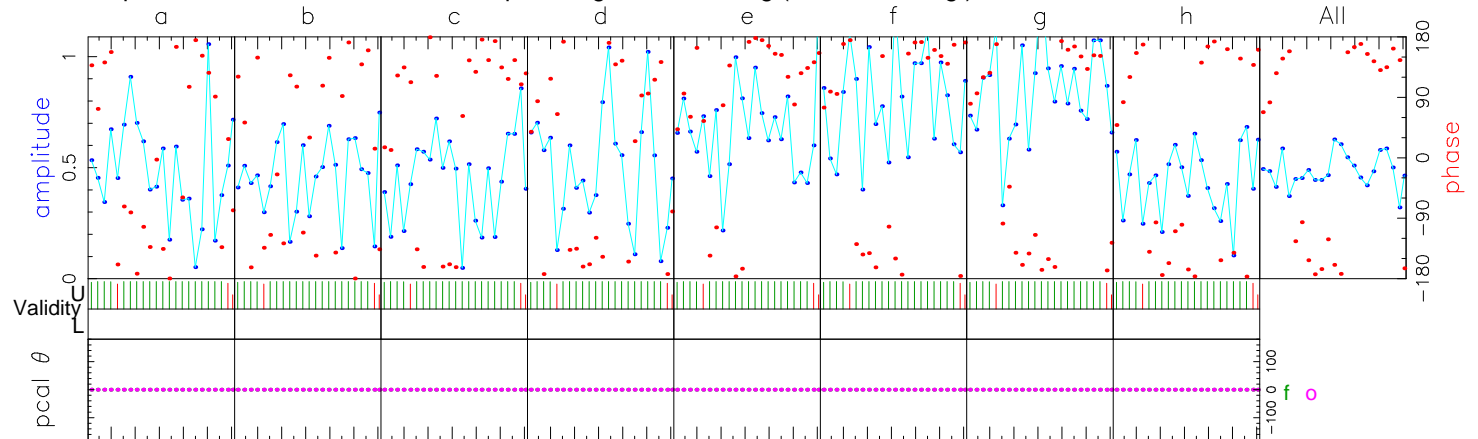


Fringe quality 8

SNR 18.7
Int time 354.252
Amp 0.363
Phase 167.0
PFD 0.0e+00
Delays (us)
SBD -0.001450
MBD -0.001733
Fringe rate (Hz)
-0.004395
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

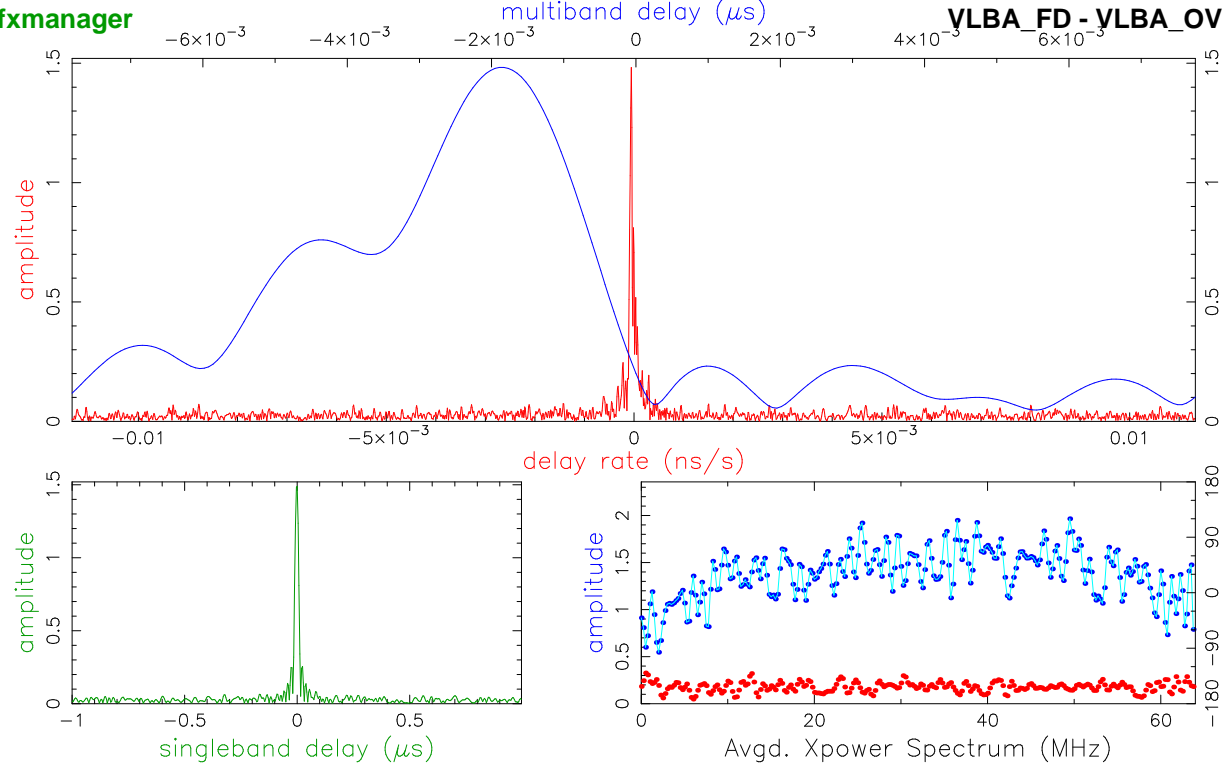
Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074502.56
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040639
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



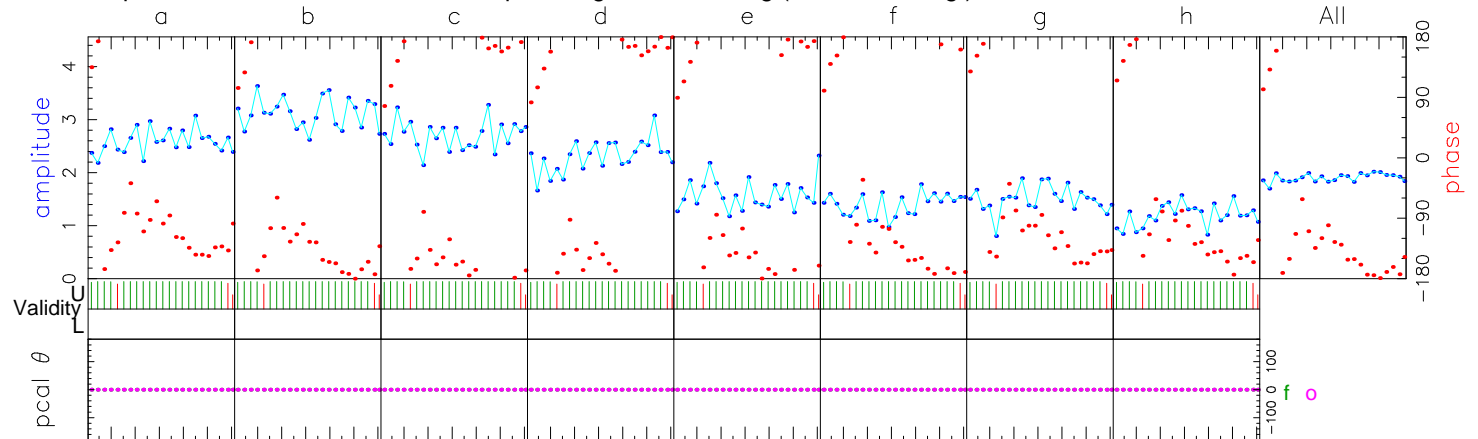
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-164.9	177.5	150.0	152.9	147.8	172.3	174.2	177.4	Phase	167.0
	0.2	0.2	0.3	0.3	0.4	0.6	0.6	0.3	Ampl.	0.4
	91.1	256.9	256.4	256.3	256.7	256.9	256.8	256.3	Sbd box	256.6
U/L	696/0	696/0	696/0	696/0	696/0	696/0	696/0	696/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	9.08965985711E+02		Apriori delay (usec)		9.08967718707E+02		Resid mbdelay (usec)		-1.73300E-03	+/- 5.8E-05
Sband delay (usec)	9.08966268207E+02		Apriori clock (usec)		-1.3490761E+01		Resid sbdelay (usec)		-1.45050E-03	+/- 4.6E-04
Phase delay (usec)	9.08967724091E+02		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		5.38406E-06	+/- 2.0E-07
Delay rate (us/s)	-1.89215417328E-01		Apriori rate (us/s)		-1.89215366308E-01		Resid rate (us/s)		-5.10204E-08	+/- 9.6E-10
Total phase (deg)	271.2		Apriori accel (us/s/s)		-1.20470861873E-05		Resid phase (deg)		167.0	+/- 6.1

ph/seg (deg) 45.7 14.7 Search (2048X32) 0.366 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 40.1 25.6 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 18.0 8.7 Inc. seg. avg. 0.473 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 44.2 15.1 Inc. frq. avg. 0.364 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 47.8 el 71.9 pa -120.4 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 1429.527 -1485.307 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/fo..1VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/fo.W.149.1VBZA



Fringe quality 3
SNR 78.3
Int time 354.252
Amp 1.520
Phase -153.0
PFD 0.0e+00
Delays (us)
SBD -0.001852
MBD -0.001828
Fringe rate (Hz)
-0.004398
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074502.56
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040628
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-120.2	-149.4	-176.6	-178.7	-166.9	-156.8	-129.2	-134.9	Phase	-153.0
	2.1	2.4	2.2	1.8	1.2	1.0	1.1	0.9	Ampl.	1.6
	256.6	256.1	256.6	256.5	256.8	256.6	256.3	256.4	Sbd box	256.5
U/L	696/0	696/0	696/0	696/0	696/0	696/0	696/0	696/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	9.08965890836E+02		Apriori delay (usec)		9.08967718707E+02		Resid mbdelay (usec)		-1.82787E-03	+/- 1.4E-05
Sband delay (usec)	9.08965866957E+02		Apriori clock (usec)		-1.3490761E+01		Resid sbdelay (usec)		-1.85175E-03	+/- 1.1E-04
Phase delay (usec)	9.08967713774E+02		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-4.93289E-06	+/- 4.7E-08
Delay rate (us/s)	-1.89215417370E-01		Apriori rate (us/s)		-1.89215366308E-01		Resid rate (us/s)		-5.10622E-08	+/- 2.3E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.20470861873E-05		Resid phase (deg)		-153.0	+/- 1.5

ph/seg (deg) 41.7 3.5 Search (2048X32) 1.444 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 25.9 6.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 23.8 2.1 Inc. seg. avg. 1.903 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 36.4 3.6 Inc. frq. avg. 1.591 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
f: az 47.8 el 71.9 pa -120.4 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 1429.527 -1485.307 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/fo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/fo.W.89.11VBZA

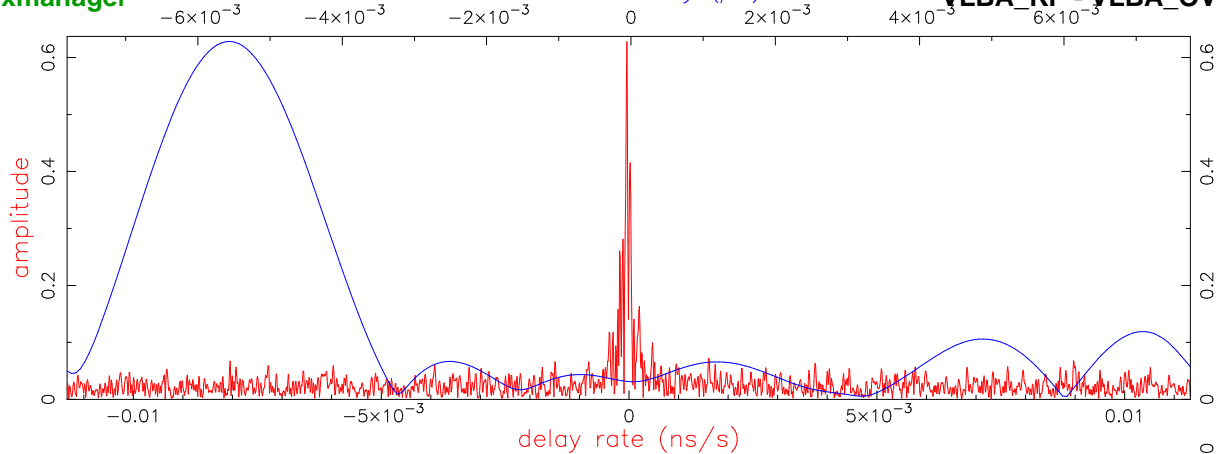
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11VBZA, No0277, ko

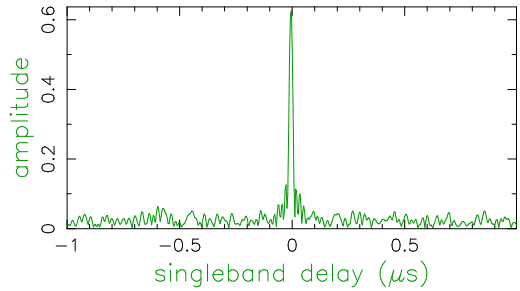
VLBA_KP - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

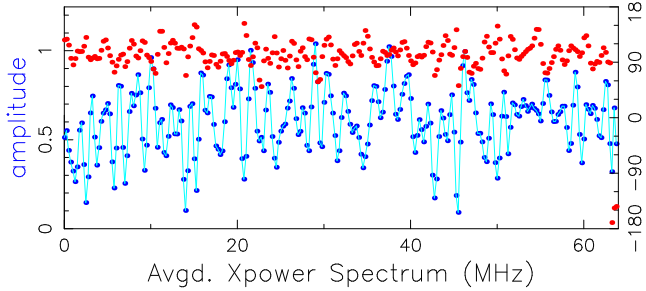


Fringe quality 6

SNR 32.9
 Int time 356.374
 Amp 0.637
 Phase 105.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.005441
 MBD -0.005617
 Fringe rate (Hz)
 -0.003877
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

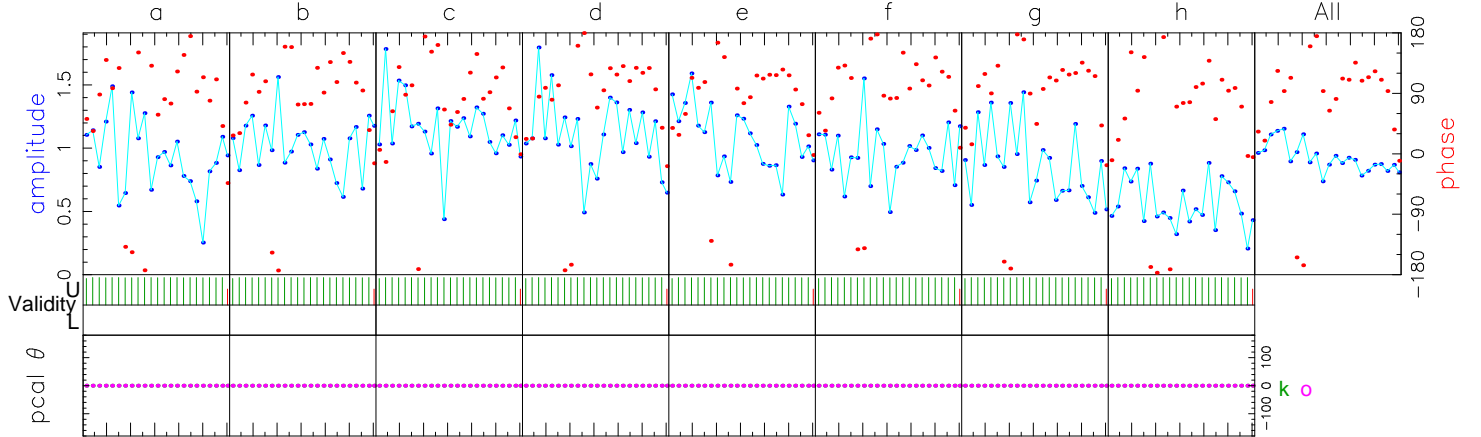


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040642
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 3.58442056491E+02 Apriori delay (usec) 3.58447673602E+02 Resid mbdelay (usec) -5.61711E-03 +/- 3.3E-05
 Sband delay (usec) 3.58442232602E+02 Apriori clock (usec) -2.1046505E+01 Resid sbdelay (usec) -5.44100E-03 +/- 2.6E-04
 Phase delay (usec) 3.58447677015E+02 Apriori clockrate (us/s) 1.9999998E-07 Resid phdelay (usec) 3.41329E-06 +/- 1.1E-07
 Delay rate (us/s) -6.99217984131E-02 Apriori rate (us/s) -6.99217533999E-02 Resid rate (us/s) -4.50132E-08 +/- 5.4E-10
 Total phase (deg) 323.3 Apriori accel (us/s/s) -7.68400193423E-06 Resid phase (deg) 105.8 +/- 3.5

ph/seg (deg) 49.8 8.4 Search (2048X32) 0.619 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 48.7 14.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.8 4.9 Inc. seg. avg. 0.917 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 20.7 8.6 Inc. frq. avg. 0.631 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 57.4 el 67.5 pa -107.9 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 523.380 -1041.969 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/ko..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/ko.W.161.11VBZA

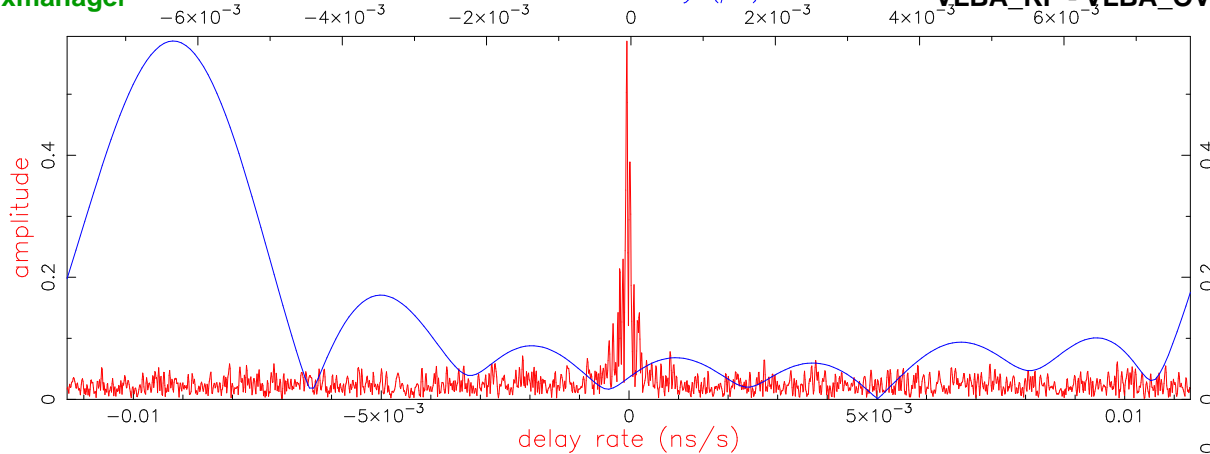
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11VBZA, No0277, ko

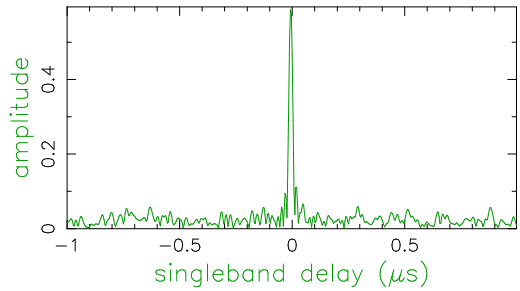
VLBA_KP - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

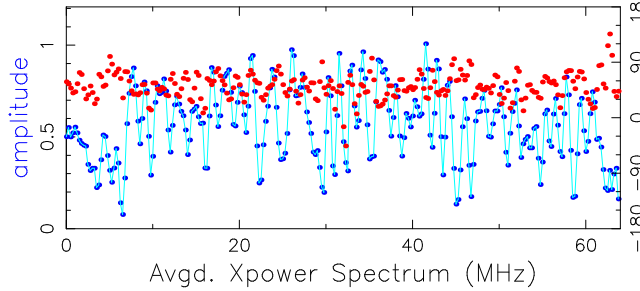


Fringe quality 7

SNR 30.7
 Int time 356.374
 Amp 0.595
 Phase 49.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.006326
 MBD -0.006308
 Fringe rate (Hz)
 -0.003930
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

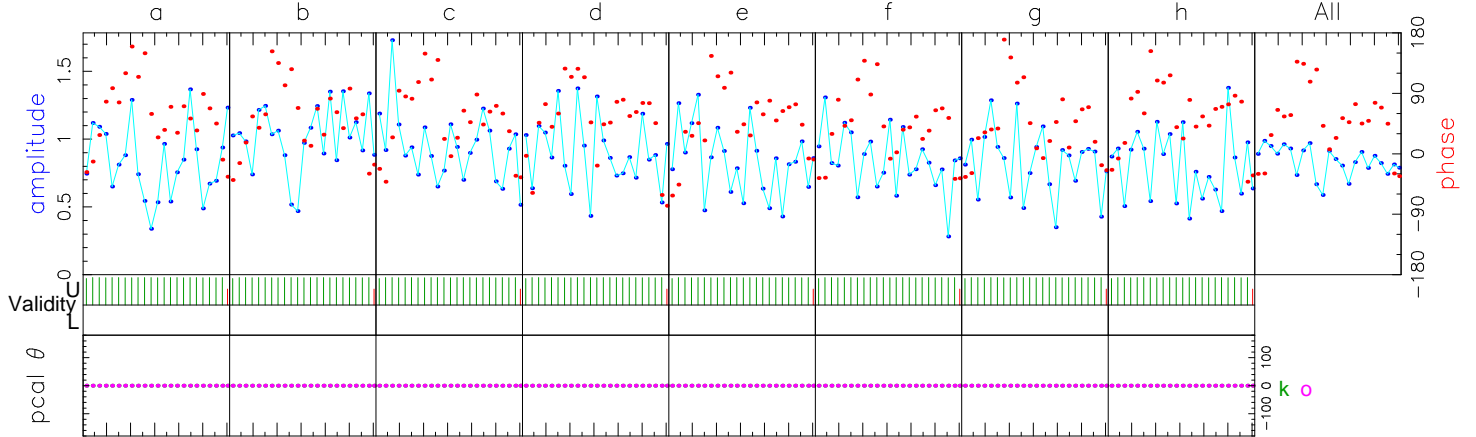


delay rate (ns/s)



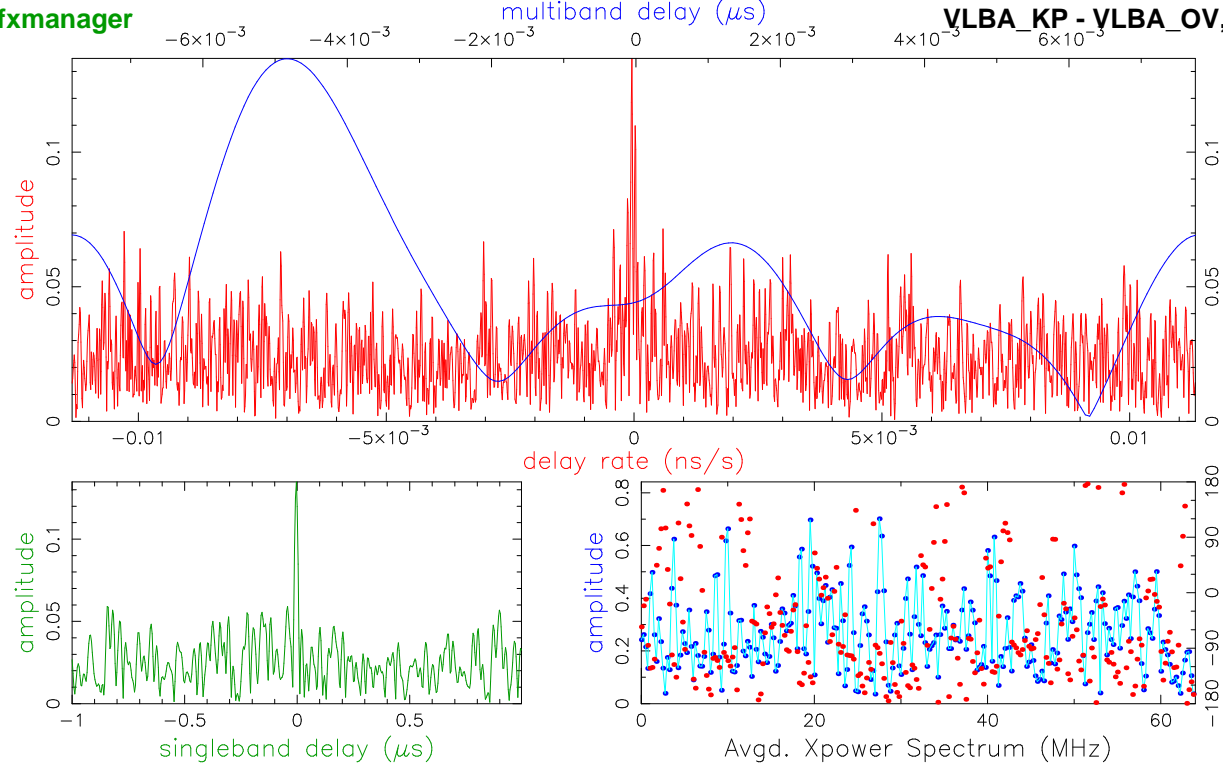
Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040647
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



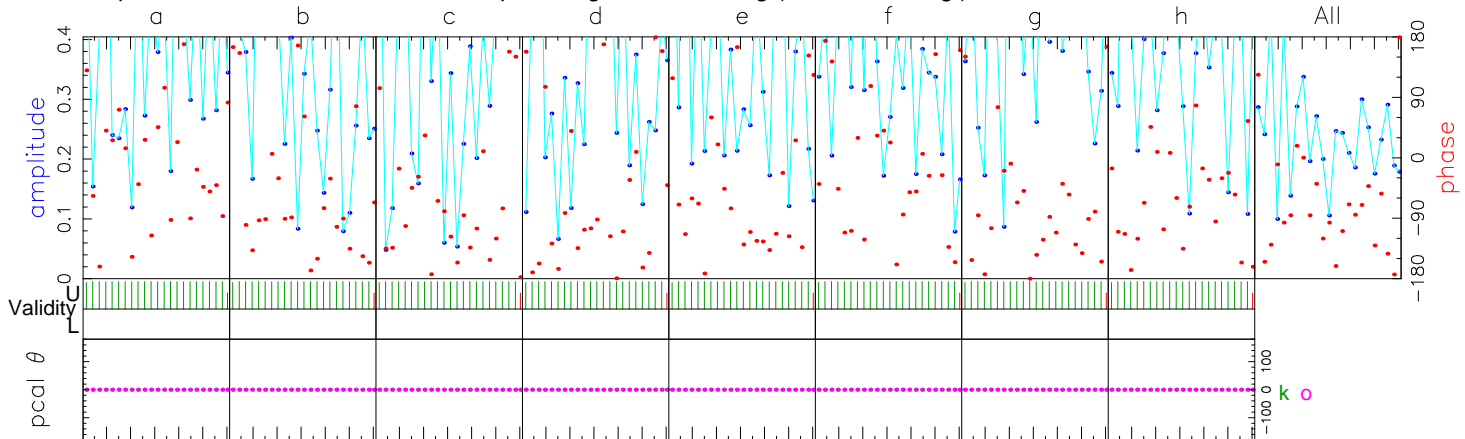
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0		
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	3.58441365179E+02		Apriori delay (usec)		3.58447673602E+02		Resid mbdelay (usec)		-6.30842E-03	+/- 3.5E-05
Sband delay (usec)	3.58441347852E+02		Apriori clock (usec)		-2.1046505E+01		Resid sbdelay (usec)		-6.32575E-03	+/- 2.8E-04
Phase delay (usec)	3.58447675194E+02		Apriori clockrate (us/s)		1.9999998E-07		Resid phdelay (usec)		1.59166E-06	+/- 1.2E-07
Delay rate (us/s)	-6.99217990218E-02		Apriori rate (us/s)		-6.99217533999E-02		Resid rate (us/s)		-4.56219E-08	+/- 5.8E-10
Total phase (deg)	266.8		Apriori accel (us/s/s)		-7.68400193423E-06		Resid phase (deg)		49.4	+/- 3.7

ph/seg (deg) 47.8 8.9 Search (2048X32) 0.585 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 44.8 15.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 9.8 5.3 Inc. seg. avg. 0.830 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.5 9.2 Inc. frq. avg. 0.591 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 57.4 el 67.5 pa -107.9 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 523.380 -1041.969 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/ko..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/ko.W.175.11VBZA



Fringe quality 0
SNR 7.0
Int time 356.374
Amp 0.135
Phase -95.7
PFD 1.0e-03
Delays (us)
SBD -0.004295
MBD -0.004844
Fringe rate (Hz)
-0.003999
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074501.54
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040651
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-5.0	-107.2	-105.8	-134.4	-99.0	-62.4	-104.4	-67.2	Phase	-95.7
	0.1	0.2	0.1	0.2	0.1	0.3	0.2	0.2	Ampl.	0.1
	20.6	255.0	299.2	256.1	228.2	199.0	256.2	257.2	Sbd box	255.9
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 3.58442829679E+02 Apriori delay (usec) 3.58447673602E+02 Resid mbdelay (usec) -4.84392E-03 +/- 1.6E-04
Sband delay (usec) 3.58443378102E+02 Apriori clock (usec) -2.1046505E+01 Resid sbdelay (usec) -4.29550E-03 +/- 1.2E-03
Phase delay (usec) 3.58447670515E+02 Apriori clockrate (us/s) 1.9999998E-07 Resid phdelay (usec) -3.08692E-06 +/- 5.3E-07
Delay rate (us/s) -6.99217998281E-02 Apriori rate (us/s) -6.99217533999E-02 Resid rate (us/s) -4.64282E-08 +/- 2.6E-09
Total phase (deg) 121.7 Apriori accel (us/s/s) -7.68400193423E-06 Resid phase (deg) -95.7 +/- 16.5

RMS Theor. Amplitude 0.135 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
ph/seg (deg) 60.1 39.5 Search (2048X32) 0.133 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
amp/seg (%) 102.2 68.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg) 44.6 23.3 Inc. seg. avg. 0.196 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
amp/frq (%) 49.1 40.6 Inc. frq. avg. 0.149 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

k: az 57.4 el 67.5 pa -107.9 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 523.380 -1041.969 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/ko..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/ko.W.198.11VBZA

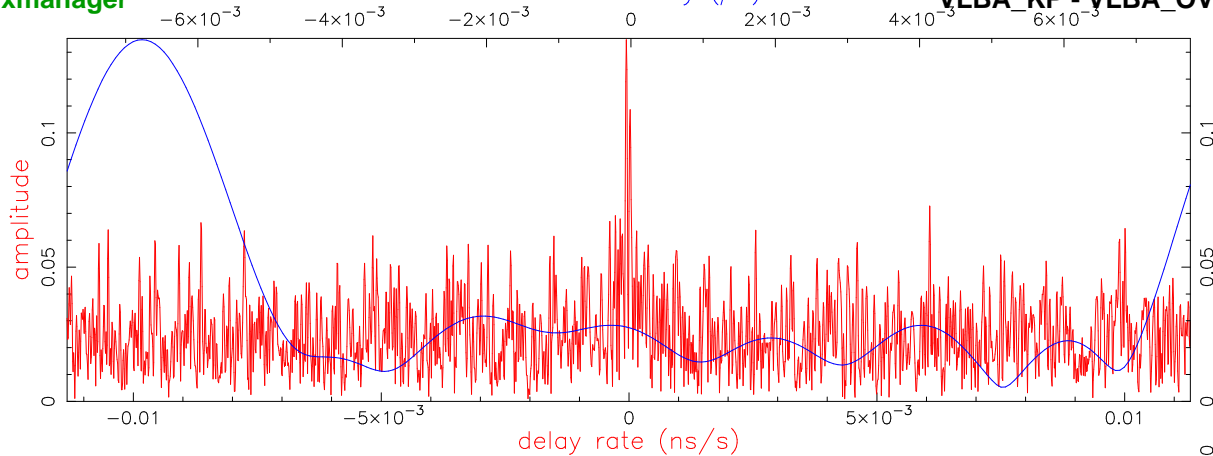
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11VBZA, No0277, ko

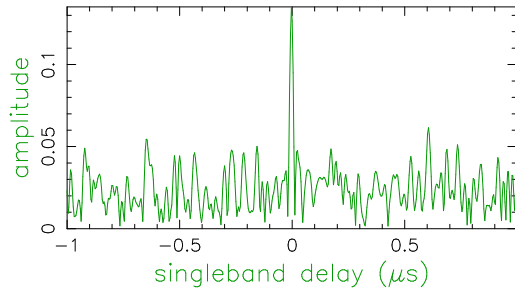
VLBA_KP - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

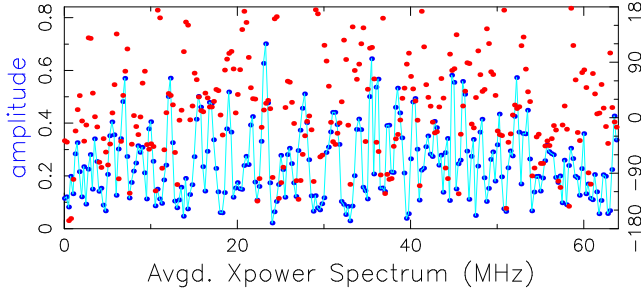


Fringe quality 0

SNR 7.0
 Int time 356.374
 Amp 0.135
 Phase 56.7
 PFD 9.0e-04
 Delays (us)
 SBD -0.003163
 MBD -0.006759
 Fringe rate (Hz)
 -0.005217
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

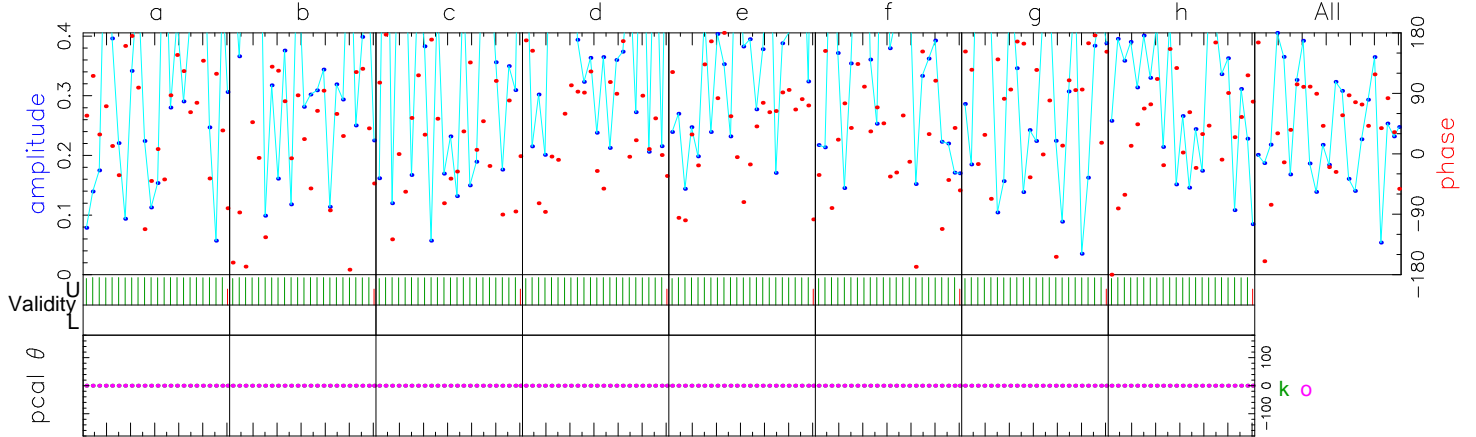


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040654
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0			
k	1000	1000	1000	1000	1000	1000	1000	1000			
o	1000	1000	1000	1000	1000	1000	1000	1000			
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
k	1000	1000	1000	1000	1000	1000	1000	1000			
o	1000	1000	1000	1000	1000	1000	1000	1000			
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)		3.58440914175E+02			3.58447673602E+02						
Sband delay (usec)		3.58444510102E+02			-2.1046505E+01						
Phase delay (usec)		3.58447675431E+02			1.9999998E-07						
Delay rate (us/s)		-6.99218139688E-02			-6.99217533999E-02						
Total phase (deg)			274.2		-7.68400193423E-06						
				Apriori delay (usec)					Resid mbdelay (usec)	-6.75943E-03	+/- 1.6E-04
				Apriori clock (usec)					Resid sbdelay (usec)	-3.16350E-03	+/- 1.2E-03
				Apriori clockrate (us/s)					Resid phdelay (usec)	1.82934E-06	+/- 5.3E-07
				Apriori rate (us/s)					Resid rate (us/s)	-6.05689E-08	+/- 2.6E-09
				Apriori accel (us/s/s)					Resid phase (deg)	56.7	+/- 16.4
									PCal mode: MANUAL, MANUAL		
									PCal rate: 0.000E+00, 0.000E+00 (us/s)		
									Bits/sample: 2x2		
									Sample rate(MISamp/s): 128		
									Data rate(Mb/s): 2048		
									nlags: 256		
									t_cohere infinite		
									ion window (TEC)	0.00	0.00
									sb window (us)	-1.000	1.000
									mb window (us)	-0.008	0.008
									dr window (ns/s)	-0.011	0.011

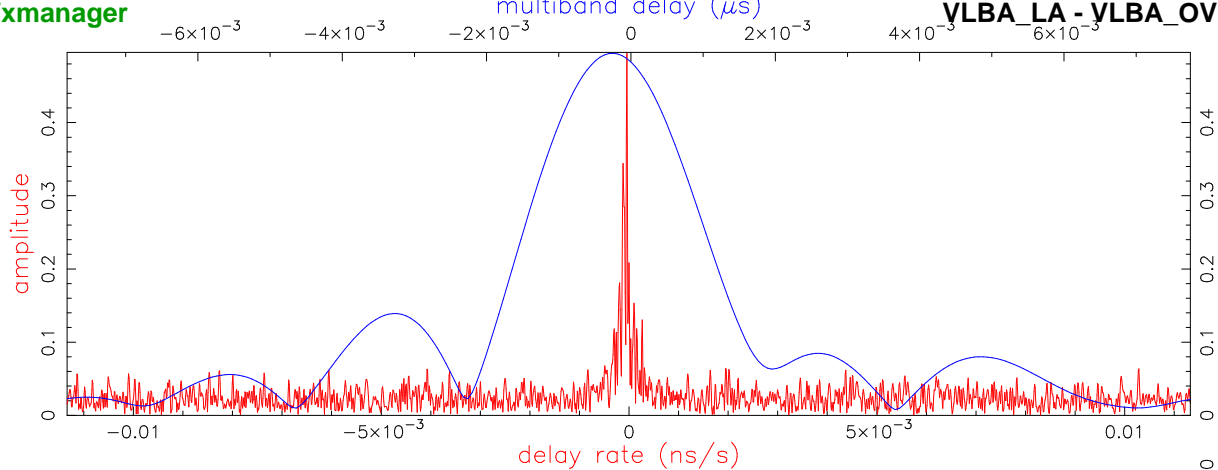
k: az 57.4 el 67.5 pa -107.9 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 523.380 -1041.969 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/ko..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/ko.W.216.11VBZA

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

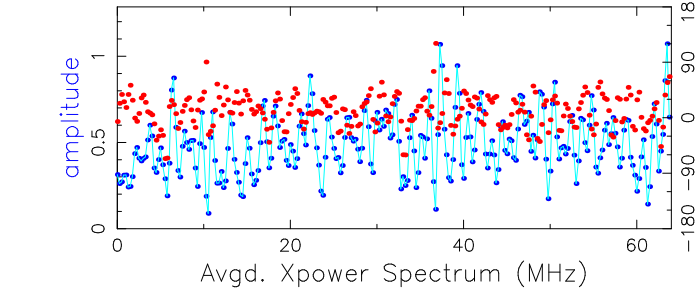
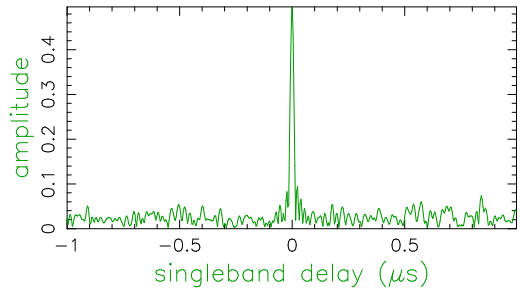
3C84.11VBZA, No0277, lo

VLBA_LA - VLBA_OV, fgroup W, pol LL



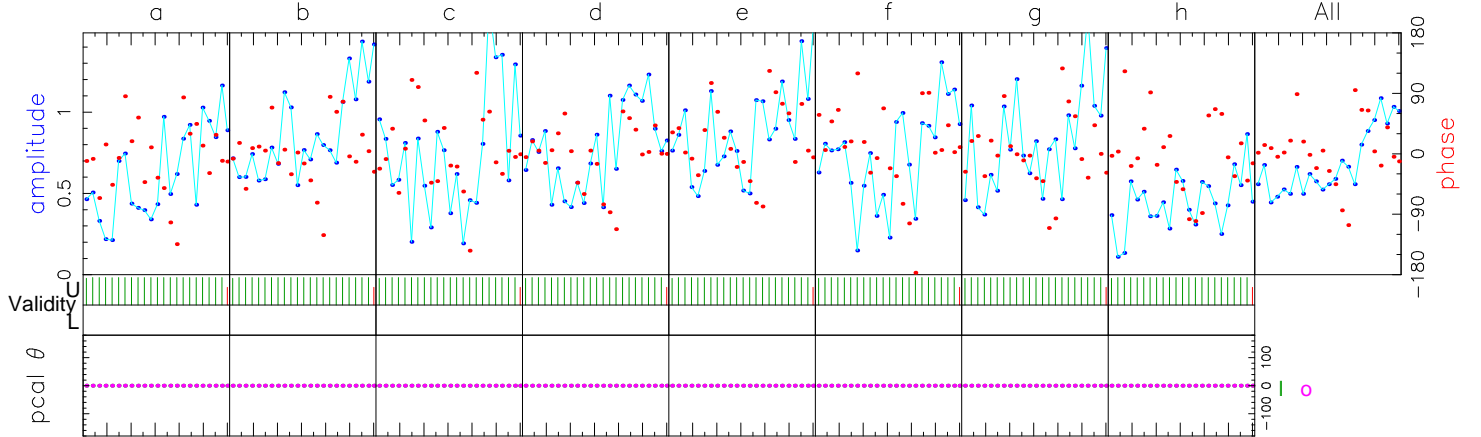
Fringe quality 7

SNR 25.7
 Int time 358.826
 Amp 0.496
 Phase 6.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.000629
 MBD -0.000268
 Fringe rate (Hz) -0.003634
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040646
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 1.05175964684E+03 Apriori delay (usec) 1.05175991531E+03 Resid mbdelay (usec) -2.68469E-04 +/- 4.2E-05
 Sband delay (usec) 1.05175928656E+03 Apriori clock (usec) -2.1800999E+01 Resid sbdelay (usec) -6.28750E-04 +/- 3.4E-04
 Phase delay (usec) 1.05175991551E+03 Apriori clockrate (us/s) 0.000000E+00 Resid phdelay (usec) 1.99384E-07 +/- 1.4E-07
 Delay rate (us/s) -1.69693112199E-01 Apriori rate (us/s) -1.69693070013E-01 Resid rate (us/s) -4.21861E-08 +/- 6.9E-10
 Total phase (deg) 44.0 Apriori accel (us/s/s) -7.23311830947E-06 Resid phase (deg) 6.2 +/- 4.5

RMS Theor. Amplitude 0.496 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 46.7 10.7 Search (2048X32) 0.480 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 54.0 18.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 12.1 6.3 Inc. seg. avg. 0.671 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 19.9 11.0 Inc. frq. avg. 0.499 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

l: az 63.6 el 73.3 pa -104.5 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 1287.140 -651.304 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/lo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/lo.W.168.11VBZA

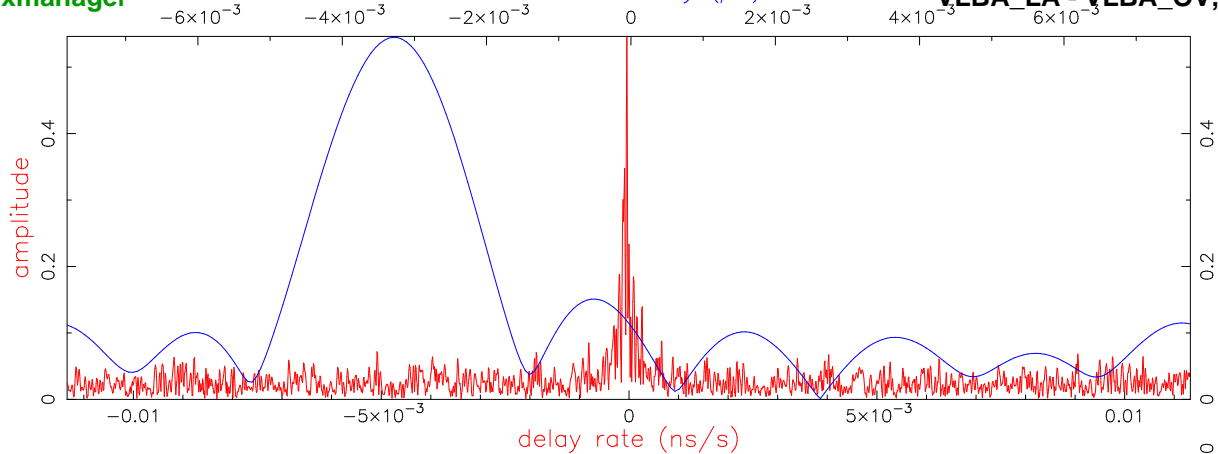
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11VBZA, No0277, lo

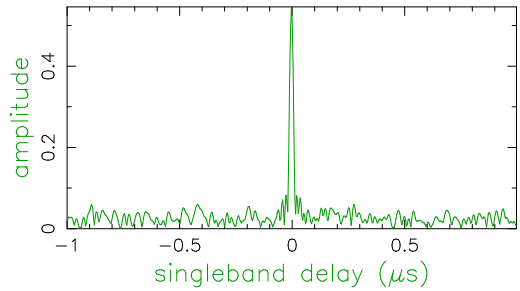
VLBA_LA - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

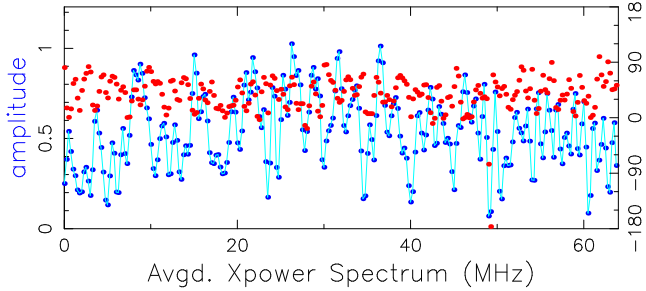


Fringe quality 7

SNR 28.3
 Int time 358.826
 Amp 0.546
 Phase 37.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.003238
 MBD -0.003266
 Fringe rate (Hz)
 -0.003564
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

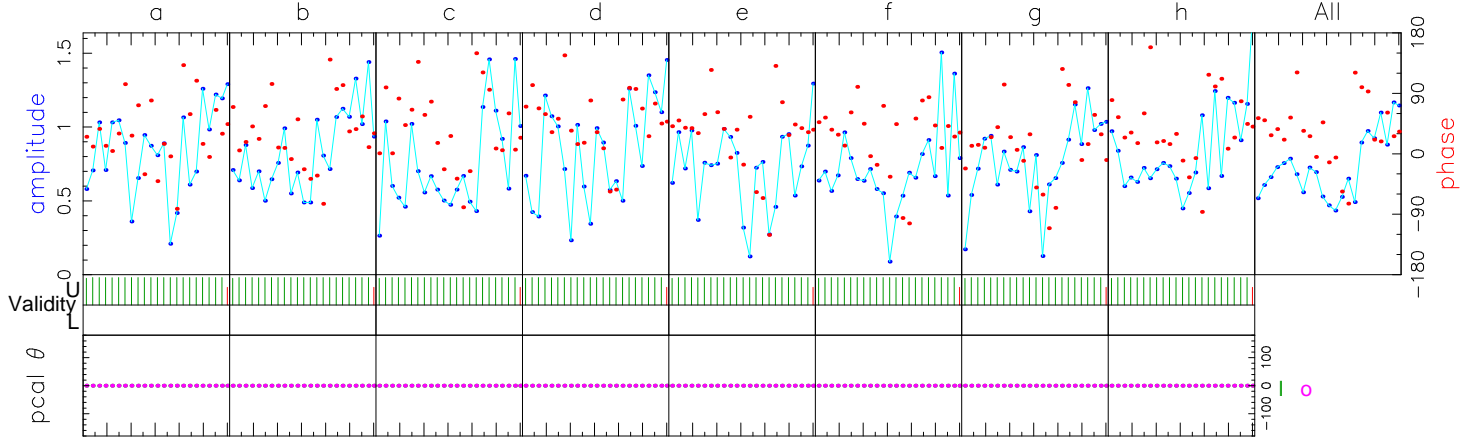


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040649
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)		1.05175664937E+03				1.05175991531E+03			Resid mbdelay (usec)	-3.26594E-03 +/- 3.8E-05
Sband delay (usec)		1.05175667706E+03				-2.1800999E+01			Resid sbdelay (usec)	-3.23825E-03 +/- 3.0E-04
Phase delay (usec)		1.05175991652E+03				0.0000000E+00			Resid phdelay (usec)	1.21026E-06 +/- 1.3E-07
Delay rate (us/s)		-1.69693111388E-01				-1.69693070013E-01			Resid rate (us/s)	-4.13748E-08 +/- 6.3E-10
Total phase (deg)			75.3			-7.23311830947E-06			Resid phase (deg)	37.5 +/- 4.1
	RMS	Theor.	Amplitude	0.546 +/- 0.019		Pcal mode: MANUAL, MANUAL			PC period (AP's)	5, 5
ph/seg (deg)	47.4	9.7	Search (2048X32)	0.530		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000 1.000
amp/seg (%)	50.8	17.0	Interp.	0.000		Bits/sample: 2x2			mb window (us)	-0.008 0.008
ph/frq (deg)	9.1	5.7	Inc. seg. avg.	0.719		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011
amp/frq (%)	10.7	10.0	Inc. frq. avg.	0.547		Data rate(Mb/s): 2048			ion window (TEC)	0.00 0.00
						nlags: 256			t_cohere infinite	
l: az 63.6 el 73.3 pa -104.5			o: az 69.9 el 64.9 pa -88.9			u,v (fr/asec) 1287.140 -651.304				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/lo..11VBZA			Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/lo.W.188.11VBZA				

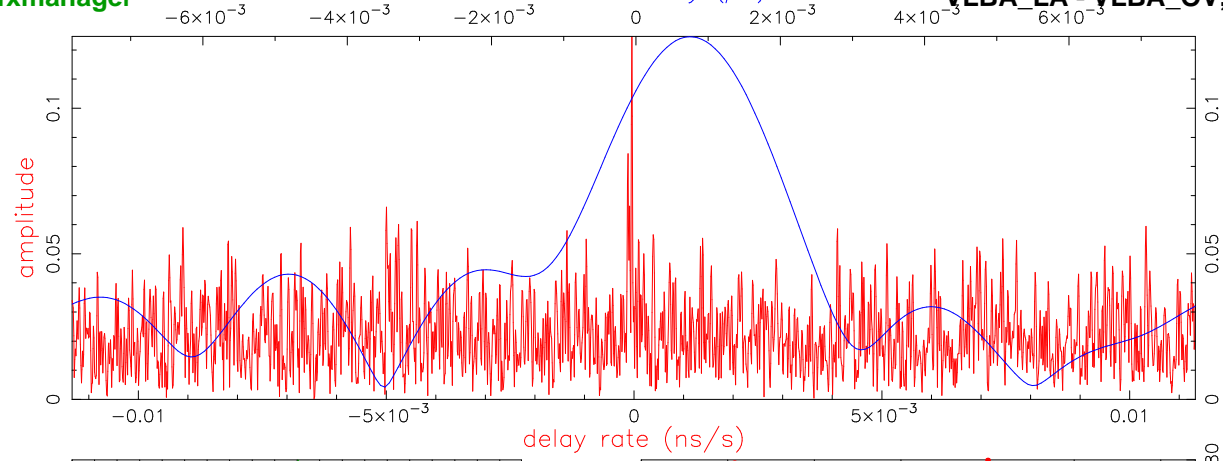
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.11VBZA, No0277, lo

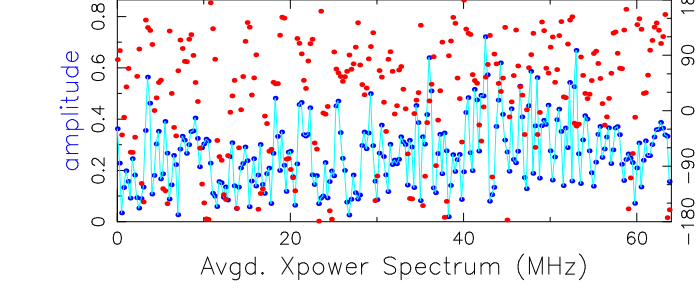
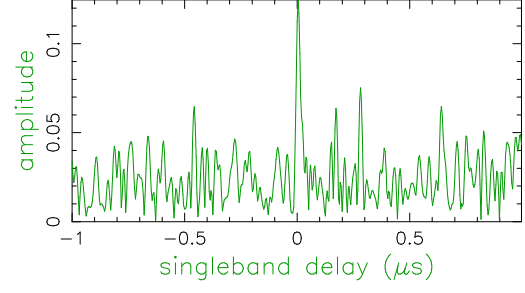
VLBA_LA - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)



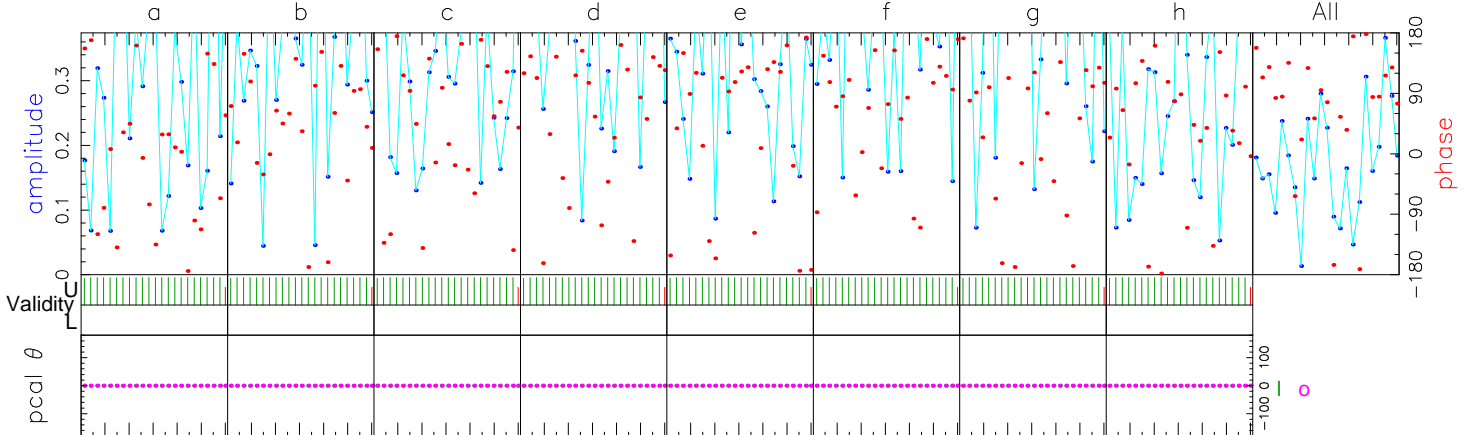
Fringe quality 0

SNR 6.5
 Int time 358.826
 Amp 0.125
 Phase 111.2
 PFD 2.9e-02
 Delays (us)
 SBD 0.004380
 MBD 0.000781
 Fringe rate (Hz)
 -0.003447
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040653
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-112.2	82.4	110.1	128.5	134.4	116.0	112.2	80.3	Phase	111.2
	0.0	0.2	0.1	0.2	0.2	0.2	0.2	0.1	Ampl.	0.1
	73.4	208.9	417.4	106.0	257.6	398.3	258.2	256.0	Sbd box	258.1
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.05176069606E+03		Apriori delay (usec)		1.05175991531E+03		Resid mbdelay (usec)		7.80750E-04	+/- 1.7E-04
Sband delay (usec)	1.05176429506E+03		Apriori clock (usec)		-2.1800999E+01		Resid sbdelay (usec)		4.37975E-03	+/- 1.3E-03
Phase delay (usec)	1.05175991890E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		3.58522E-06	+/- 5.7E-07
Delay rate (us/s)	-1.69693110035E-01		Apriori rate (us/s)		-1.69693070013E-01		Resid rate (us/s)		-4.00215E-08	+/- 2.8E-09
Total phase (deg)	149.0		Apriori accel (us/s/s)		-7.23311830947E-06		Resid phase (deg)		111.2	+/- 17.7

	RMS	Theor.	Amplitude	0.125 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	59.8	42.5	Search (2048X32)	0.118	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	78.8	74.3	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	59.6	25.1	Inc. seg. avg.	0.137	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	47.5	43.8	Inc. frq. avg.	0.127	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

l: az 63.6 el 73.3 pa -104.5 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 1287.140 -651.304 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/lo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/lo.W.210.11VBZA

Mk4/DiFX fourfit 3.21 rev 2937

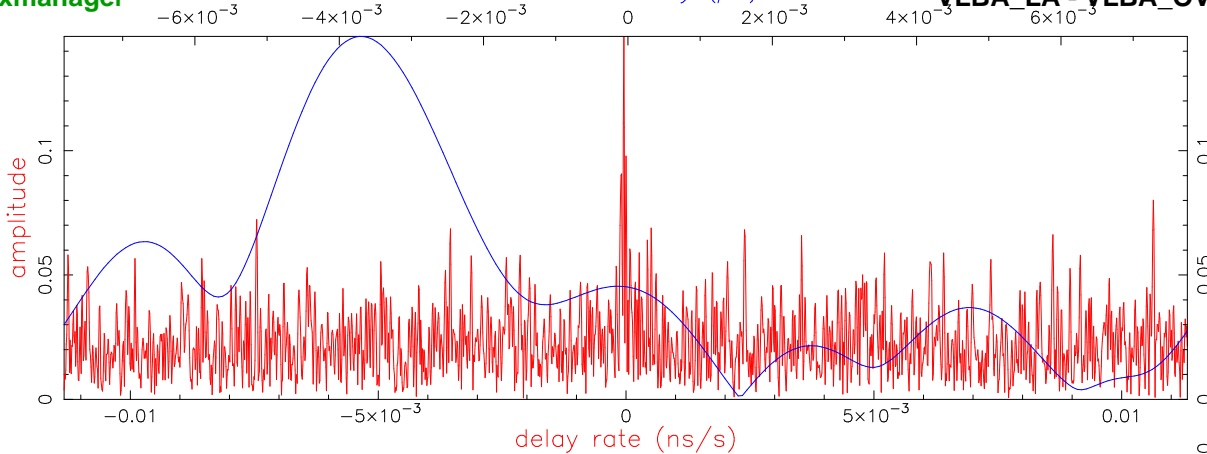
fxmanager

3C84.1VBZA, No0277, lo

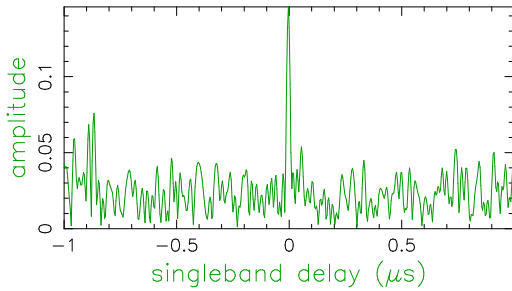
VLBA_LA - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)

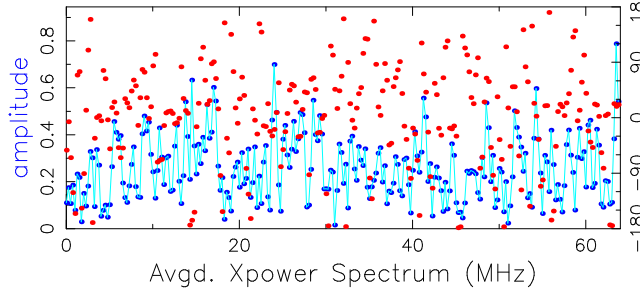
Fringe quality 9



SNR 7.6
Int time 358.826
Amp 0.146
Phase 17.8
PFD 1.3e-05
Delays (us)
SBD -0.003837
MBD -0.003701
Fringe rate (Hz)
-0.003493
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

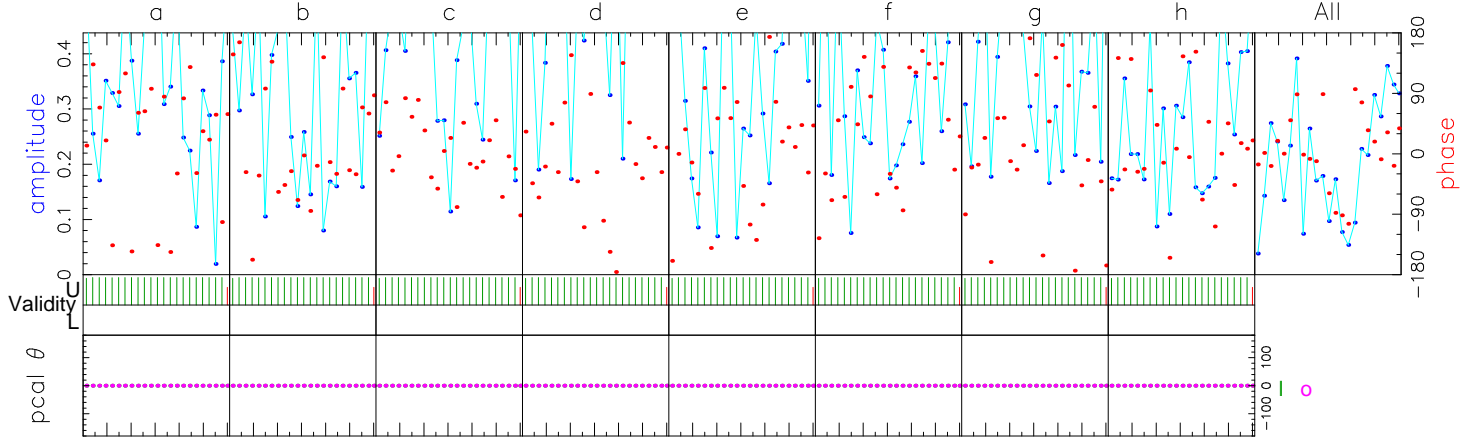


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074500.51
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040656
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		1.05175621425E+03			1.05175991531E+03					
Sband delay (usec)		1.05175607856E+03			-2.1800999E+01					
Phase delay (usec)		1.05175991589E+03			0.0000000E+00					
Delay rate (us/s)		-1.69693110560E-01			-1.69693070013E-01					
Total phase (deg)			55.6		-7.23311830947E-06				17.8	+/- 15.2
	RMS	Theor.	Amplitude	0.146 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	56.4	36.3	Search (2048X32)	0.139	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	81.9	63.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	29.9	21.4	Inc. seg. avg.	0.170	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	51.4	37.4	Inc. frq. avg.	0.147	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

l: az 63.6 el 73.3 pa -104.5 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 1287.140 -651.304 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/lo..1VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/lo.W.230.1VBZA

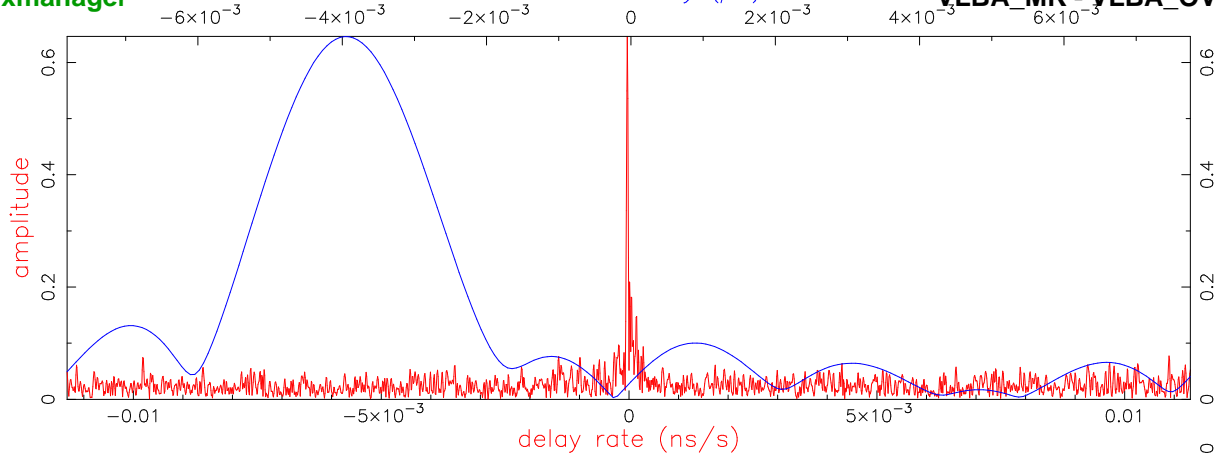
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, mo

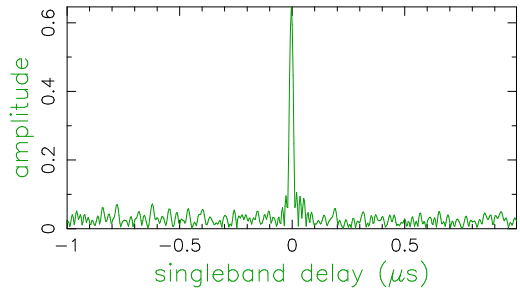
VLBA_MK - VLBA_OV, fgroup W, pol LL

multiband delay (μ s)

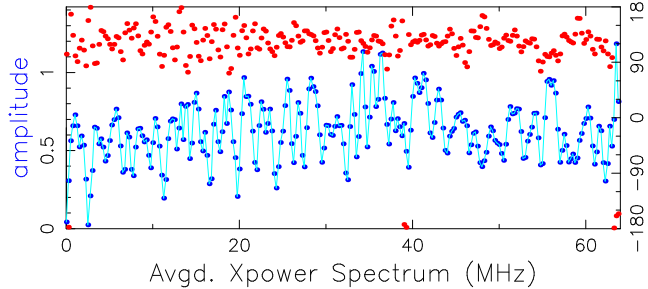


Fringe quality 8

SNR 33.5
 Int time 358.826
 Amp 0.646
 Phase 127.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.003655
 MBD -0.003939
 Fringe rate (Hz)
 -0.003145
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

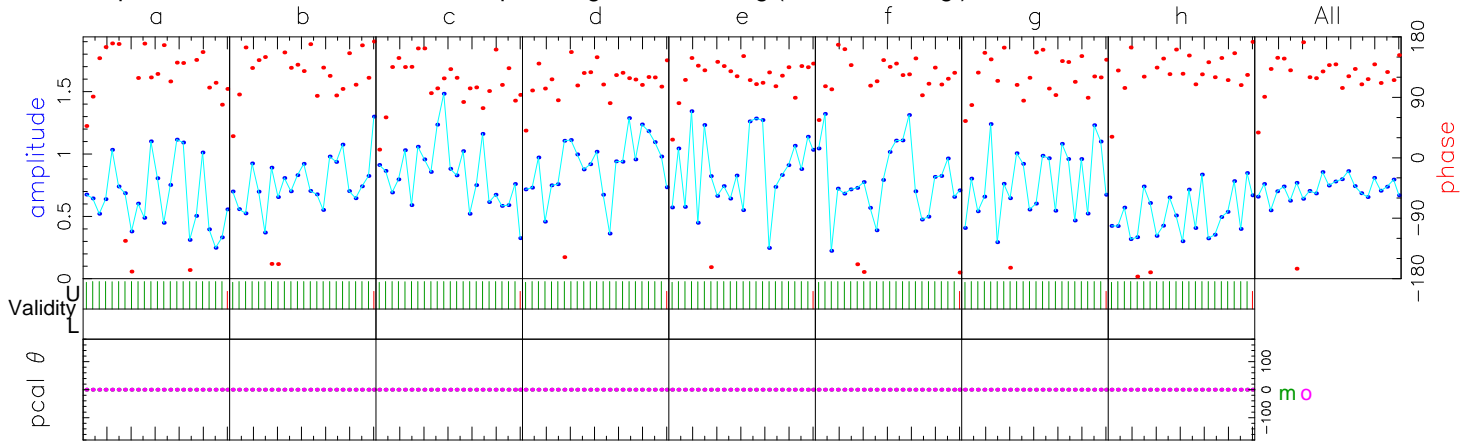


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040647
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	140.7	135.9	113.0	121.6	124.1	130.9	128.1	135.4	Phase	127.7
m	0.5	0.6	0.7	0.8	0.8	0.7	0.7	0.5	Ampl.	0.7
o	255.8	256.1	255.9	256.4	256.0	256.3	255.7	256.4	Sbd box	256.1
m	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-9.08242008222E+03	Apriori delay (usec)	-9.08241614352E+03	Resid mbdelay (usec)	-3.93870E-03	+/-	3.2E-05
Sband delay (usec)	-9.08241979802E+03	Apriori clock (usec)	-8.0165043E+00	Resid sbdelay (usec)	-3.65450E-03	+/-	2.6E-04
Phase delay (usec)	-9.08241613940E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	4.11776E-06	+/-	1.1E-07
Delay rate (us/s)	5.36597054437E-01	Apriori rate (us/s)	5.36597090947E-01	Resid rate (us/s)	-3.65106E-08	+/-	5.3E-10
Total phase (deg)		Apriori accel (us/s/s)	2.83531462307E-05	Resid phase (deg)	127.7	+/-	3.4

ph/seg (deg)	29.0	RMS	29.0	Theor.	8.2	Amplitude	0.646 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	16.8		16.8		14.3	Search (2048X32)	0.635	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	9.8		9.8		4.8	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	16.8		16.8		8.4	Inc. seg. avg.	0.719	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Inc. frq. avg.	0.651	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

m: az 52.6 el 28.2 pa -87.6 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) -4056.316 253.823 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/mo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/mo.W.178.11VBZA

Mk4/DiFX fourfit 3.21 rev 2937

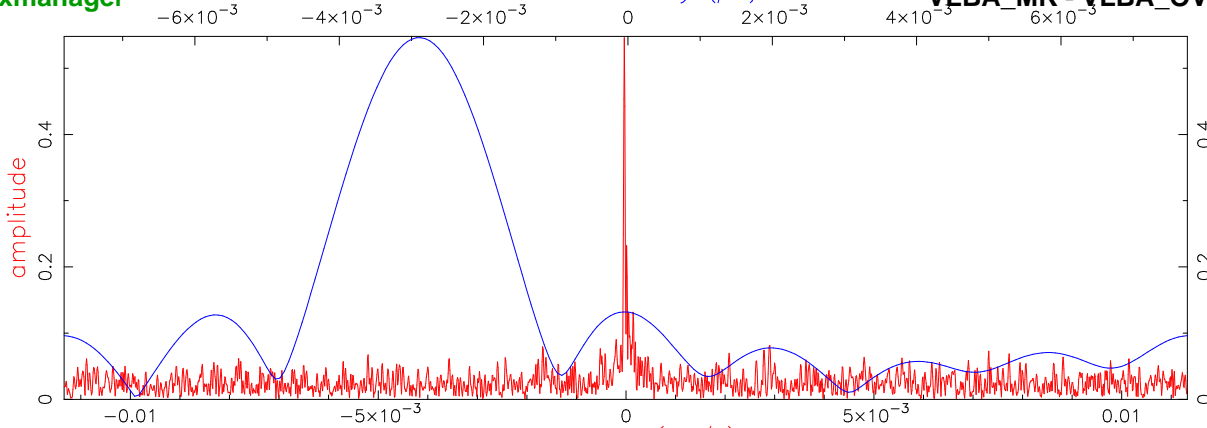
fxmanager

3C84.1VBZA, No0277, mo

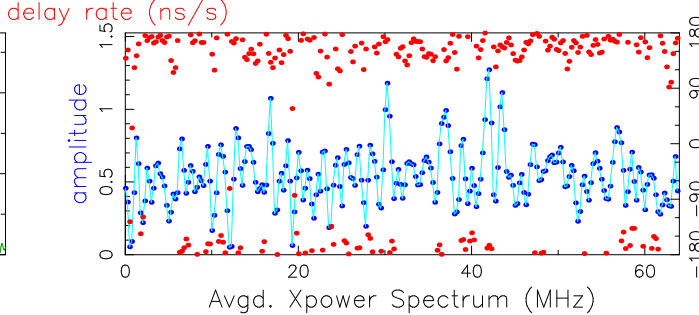
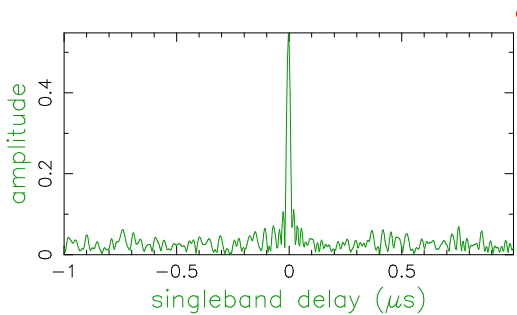
VLBA_MK - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

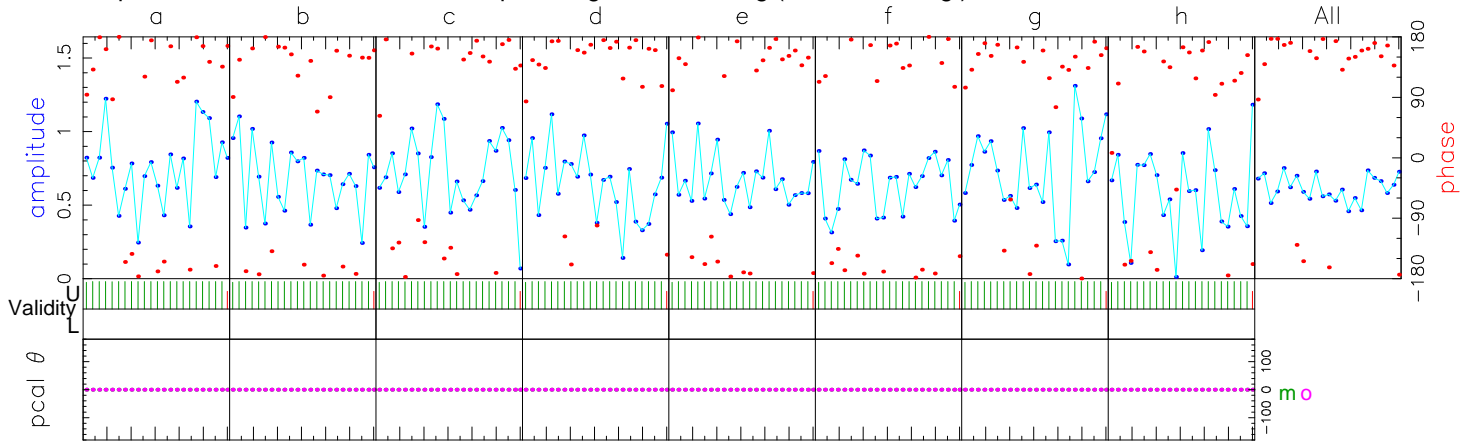


SNR 28.4
 Int time 358.826
 Amp 0.548
 Phase 163.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.003149
 MBD -0.002870
 Fringe rate (Hz)
 -0.003224
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040651
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
m:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-9.08241901363E+03	Apriori delay (usec)	-9.08241614352E+03	Resid mbdelay (usec)	-2.87011E-03	+/-	3.8E-05
Sband delay (usec)	-9.08241929302E+03	Apriori clock (usec)	-8.0165043E+00	Resid sbdelay (usec)	-3.14950E-03	+/-	3.0E-04
Phase delay (usec)	-9.08241613824E+03	Apriori clockrate (us/s)	1.9999998E-07	Resid phdelay (usec)	5.28129E-06	+/-	1.3E-07
Delay rate (us/s)	5.36597053517E-01	Apriori rate (us/s)	5.36597090947E-01	Resid rate (us/s)	-3.74310E-08	+/-	6.3E-10
Total phase (deg)	-53.2	Apriori accel (us/s/s)	2.83531462307E-05	Resid phase (deg)	163.8	+/-	4.0

ph/seg (deg)	27.7	Theor.	9.7	Amplitude	0.548 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	20.0	Search (2048X32)	0.530	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	8.6	Inc. seg. avg.	0.608	Inc. frq. avg.	0.548	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	10.6	Inc. frq. avg.	0.548			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

m: az 52.6 el 28.2 pa -87.6 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) -4056.316 253.823 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/mo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/mo.W.199.11VBZA

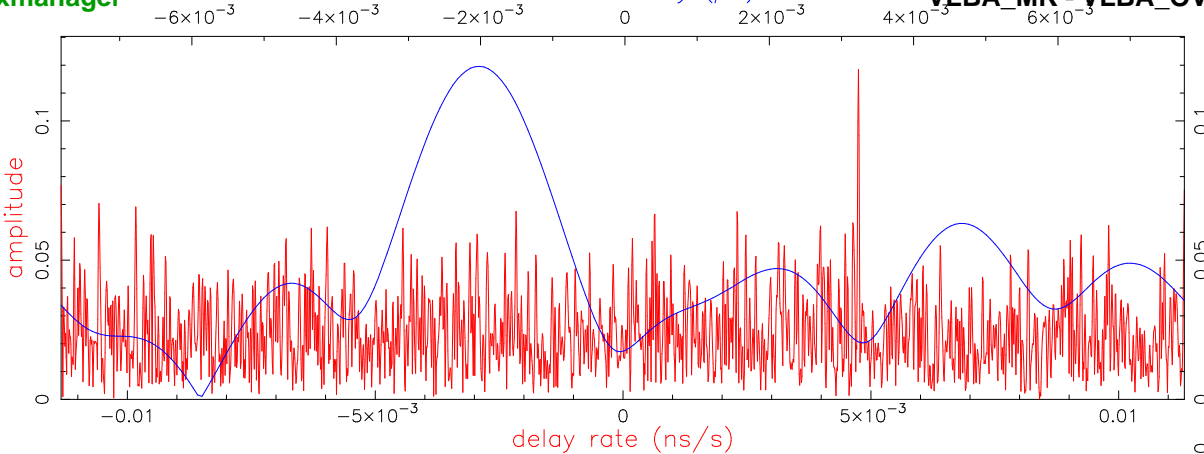
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, mo

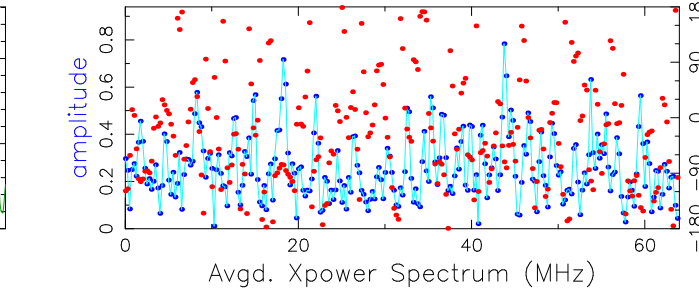
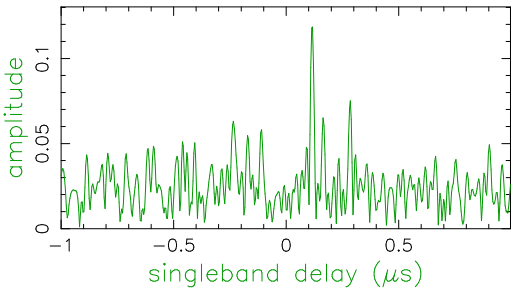
VLBA_MK - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)



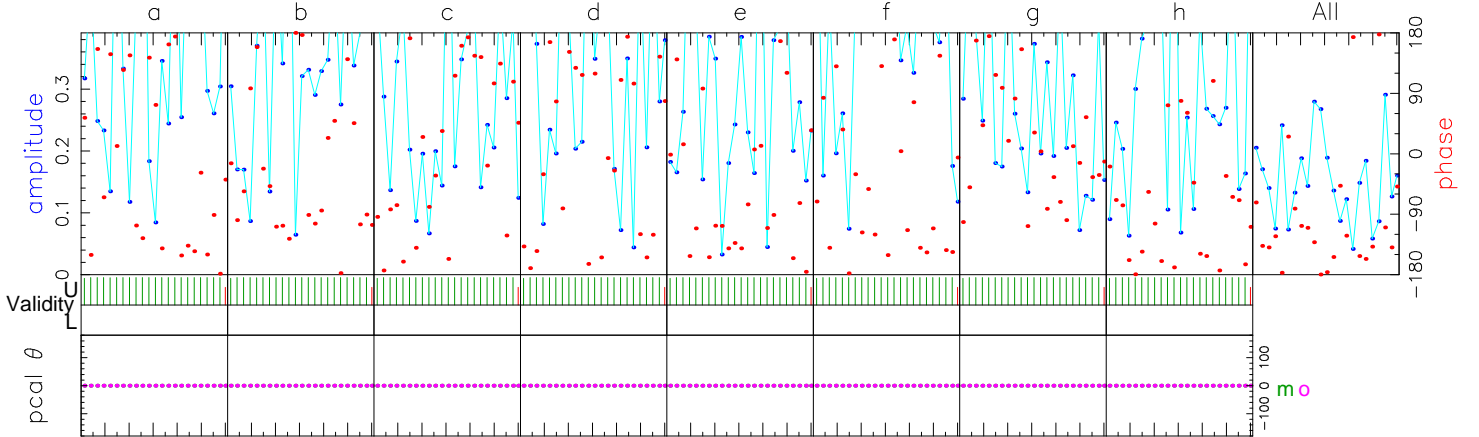
Fringe quality 0

SNR 6.3
 Int time 358.826
 Amp 0.130
 Phase -133.3
 PFD 9.1e-02
 Delays (us)
 SBD 0.115304
 MBD -0.002174
 Fringe rate (Hz)
 0.409678
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040654
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
m:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
m	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-9.08229331773E+03	-9.08230083902E+03	-9.08241614782E+03	-9.08241614352E+03	-9.08241614352E+03	-9.08241614352E+03	-9.08241614352E+03	-9.08241614352E+03		
Sband delay (usec)	-140.0	-100.0	-178.4	-162.1	-127.7	-132.6	-23.6	-124.3		
Phase delay (usec)	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2		
Delay rate (us/s)	281.5	285.4	236.3	433.5	389.7	286.8	294.3	285.3		
Total phase (deg)			-350.3							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MSamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
RMS	50.7	43.8								
Theor.										
Amplitude										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
0.130 +/- 0.021										
0.113										
1.9999998E-07										
5.36597090947E-01										
2.83531462307E-05										
-2.17421E-03										
1.15304E-01										
-4.29978E-06										
4.75596E-06										
-133.3										
+/- 1.7E-04										
+/- 1.4E-03										
+/- 5.9E-07										
+/- 2.8E-09										
+/- 18.3										
PC period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
Chan ids										
Tracks										
Chan ids										
Tracks										
m o										
simultaneous interpolator										

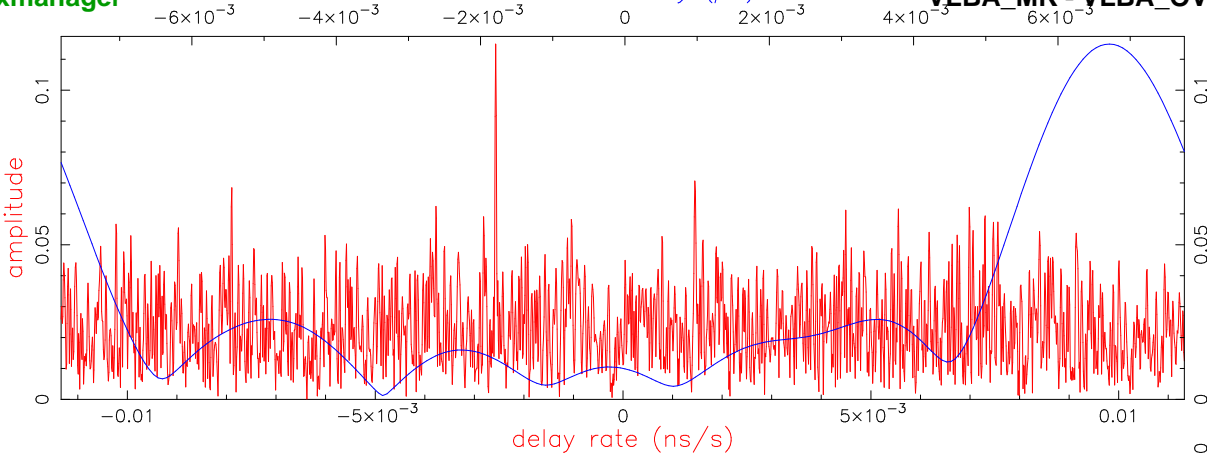
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, mo

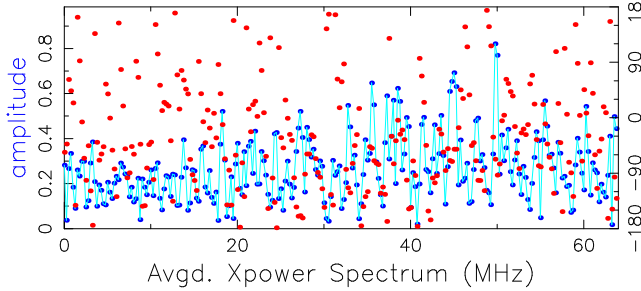
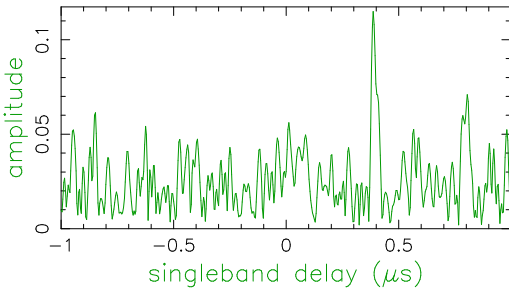
VLBA_MK - VLBA_OV, fgroup W, pol RL

multiband delay (μ s)



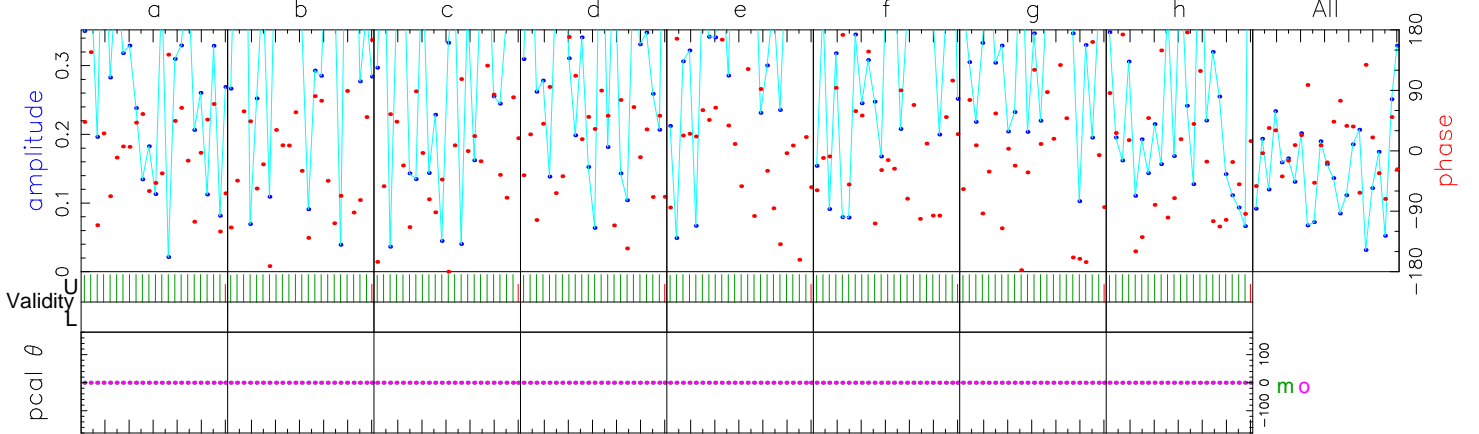
Fringe quality 0

SNR 6.0
 Int time 358.826
 Amp 0.117
 Phase 5.3
 PFD 4.9e-01
 Delays (us)
 SBD 0.386762
 MBD 0.006710
 Fringe rate (Hz)
 -0.221490
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040657
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	7.0	4.1	-0.2	6.1	4.8	14.5	14.4	-17.6	Phase	5.3
m	0.2	0.2	0.1	0.1	0.2	0.1	0.0	0.0	Ampl.	0.1
o	100.7	75.4	402.1	34.6	509.9	5.2	168.9	415.5	Sbd box	356.0
m	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
m:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -9.08203443366E+03 Apriori delay (usec) -9.08241614352E+03 Resid mbdelay (usec) 6.70986E-03 +/- 1.8E-04
 Sband delay (usec) -9.08202938127E+03 Apriori clock (usec) -8.0165043E+00 Resid sbdelay (usec) 3.86762E-01 +/- 1.4E-03
 Phase delay (usec) -9.08241614335E+03 Apriori clockrate (us/s) 1.9999998E-07 Resid phdelay (usec) 1.70626E-07 +/- 6.2E-07
 Delay rate (us/s) 5.36594519664E-01 Apriori rate (us/s) 5.36597090947E-01 Resid rate (us/s) -2.57128E-06 +/- 3.0E-09
 Total phase (deg) -211.7 Apriori accel (us/s/s) 2.83531462307E-05 Resid phase (deg) 5.3 +/- 19.2

RMS Theor. Amplitude 0.117 +/- 0.020 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 50.4 46.1 Search (2048X32) 0.112 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 63.9 80.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 11.0 27.2 Inc. seg. avg. 0.114 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.1 47.5 Inc. frq. avg. 0.106 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

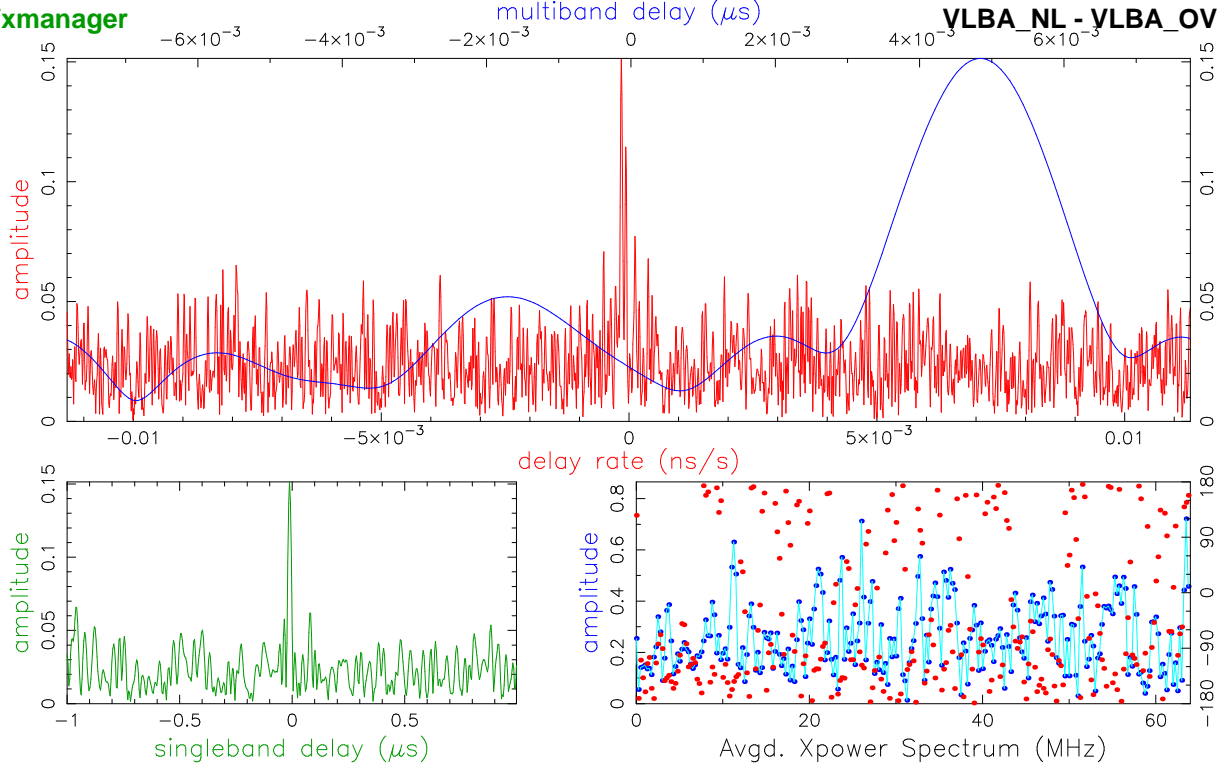
m: az 52.6 el 28.2 pa -87.6 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) -4056.316 253.823 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/mo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/mo.W.236.11VBZA

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, no

VLBA_NL - VLBA_OV, fgroup W, pol LL

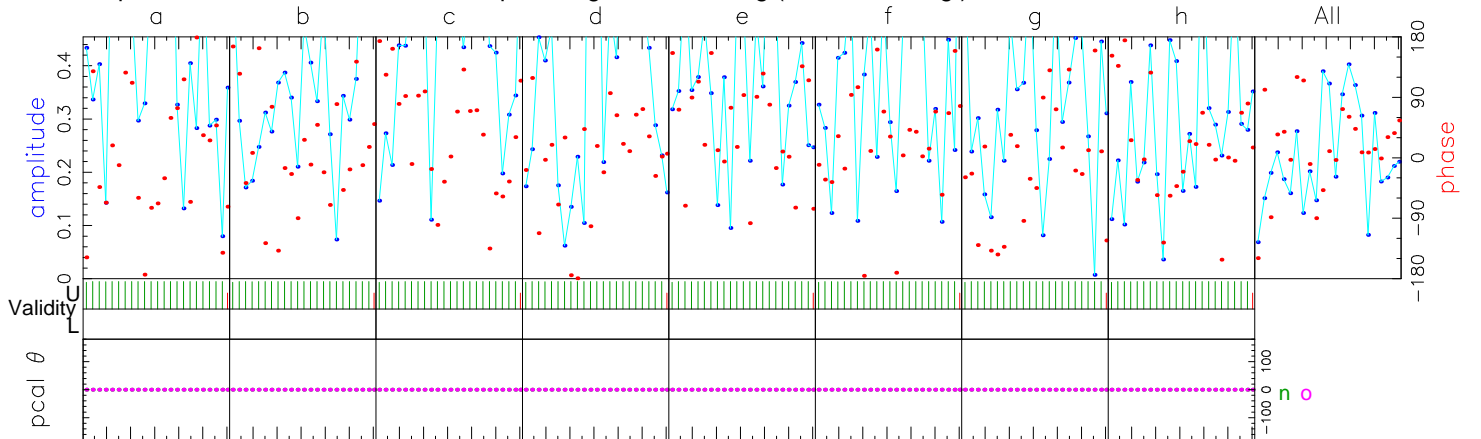


Fringe quality 9

SNR 7.8
 Int time 357.812
 Amp 0.151
 Phase 25.6
 PFD 1.6e-06
 Delays (us)
 SBD -0.011745
 MBD 0.004840
 Fringe rate (Hz)
 -0.013091
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040700
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0				
n	1000	1000	1000	1000	1000	1000	1000	1000				
o	1000	1000	1000	1000	1000	1000	1000	1000				
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
n	1000	1000	1000	1000	1000	1000	1000	1000				
o	1000	1000	1000	1000	1000	1000	1000	1000				
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
Group delay (usec)(sbd)		1.83638522314E+03			1.83639600857E+03			4.83957E-03		+/- 1.4E-04		
Sband delay (usec)		1.83638426357E+03			-2.1183514E+01			-1.17450E-02		+/- 1.1E-03		
Phase delay (usec)		1.83639600939E+03			6.0000003E-07			8.24030E-07		+/- 4.7E-07		
Delay rate (us/s)		-4.11313876075E-01			-4.11313724101E-01			-1.51974E-07		+/- 2.3E-09		
Total phase (deg)			89.7		-5.30713525656E-06			25.6		+/- 14.6		
pcal mode:					MANUAL, MANUAL			PC period (AP's) 5, 5				
pcal rate:					0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000	1.000		
Bits/sample:					2x2			SampCntNorm: enabled	mb window (us)	-0.008	0.008	
Sample rate (MSamp/s):					128			dr window (ns/s)	-0.011	0.011		
Data rate (Mb/s):					2048			nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

n: az 90.8 el 85.9 pa -84.2 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 3138.915 4.691 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/no..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/no.W.244.11VBZA

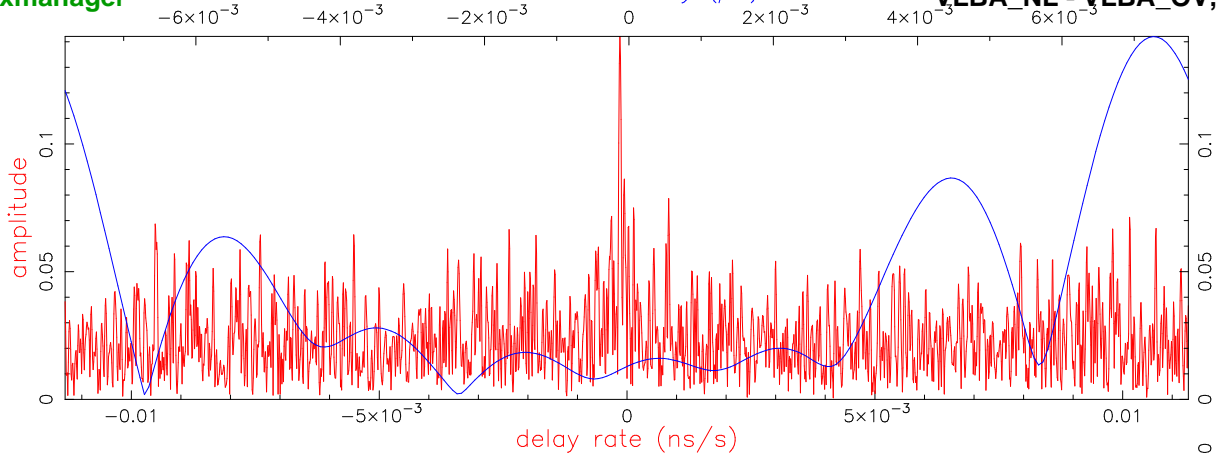
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, no

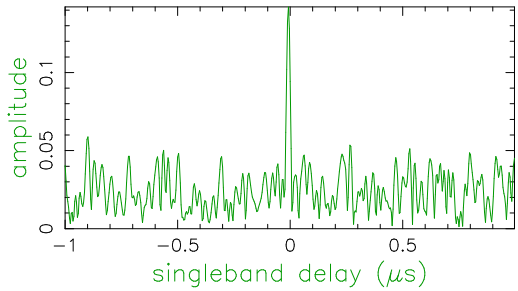
VLBA_NL - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

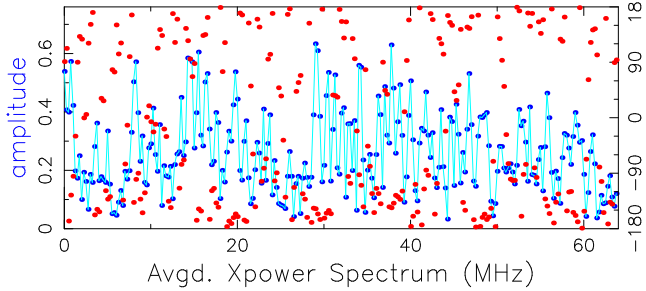


Fringe quality 9

SNR 7.4
 Int time 357.812
 Amp 0.142
 Phase 15.2
 PFD 6.2e-05
 Delays (us)
 SBD -0.008144
 MBD 0.007262
 Fringe rate (Hz)
 -0.012341
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

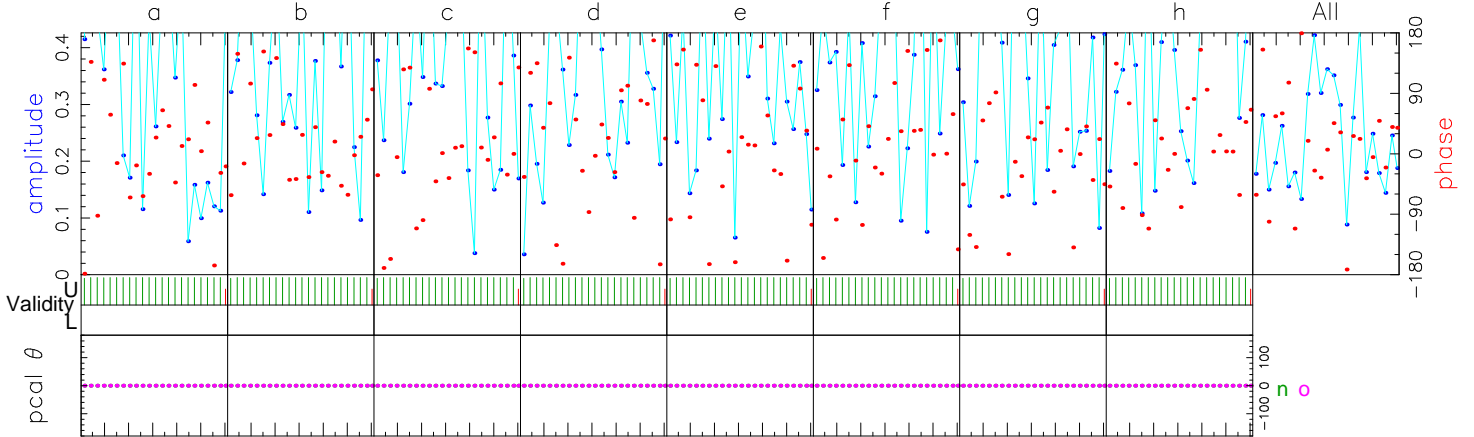


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040704
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
n	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) 1.83638764577E+03 Apriori delay (usec) 1.83639600857E+03 Resid mbdelay (usec) 7.26219E-03 +/- 1.5E-04
 Sband delay (usec) 1.83638786457E+03 Apriori clock (usec) -2.1183514E+01 Resid sbdelay (usec) -8.14400E-03 +/- 1.2E-03
 Phase delay (usec) 1.83639600906E+03 Apriori clockrate (us/s) 6.0000003E-07 Resid phdelay (usec) 4.90273E-07 +/- 5.0E-07
 Delay rate (us/s) -4.11313867369E-01 Apriori rate (us/s) -4.11313724101E-01 Resid rate (us/s) -1.43268E-07 +/- 2.4E-09
 Total phase (deg) 79.4 Apriori accel (us/s/s) -5.30713525656E-06 Resid phase (deg) 15.2 +/- 15.6

RMS Theor. Amplitude 0.142 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 77.5 37.4 Search (2048X32) 0.141 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 97.6 65.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 26.3 22.0 Inc. seg. avg. 0.202 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 39.0 38.5 Inc. frq. avg. 0.139 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 90.8 el 85.9 pa -84.2 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 3138.915 4.691 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/no..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/no.W.260.11VBZA

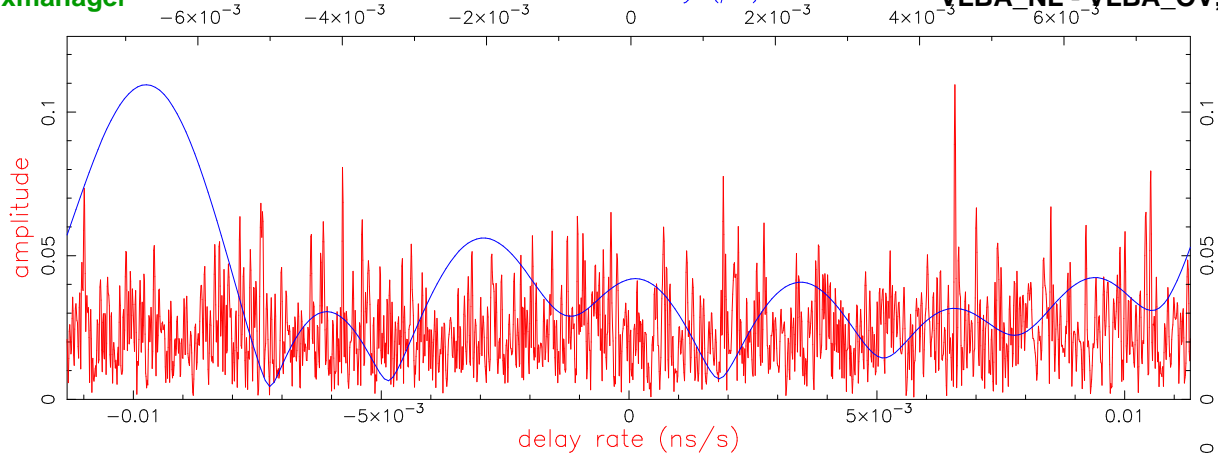
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, no

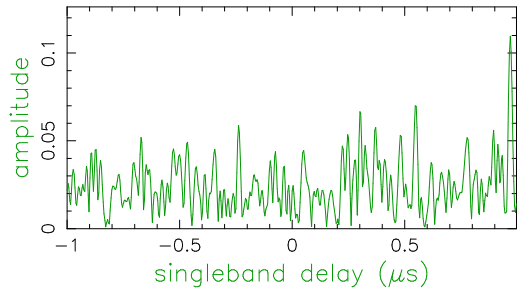
VLBA_NL - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

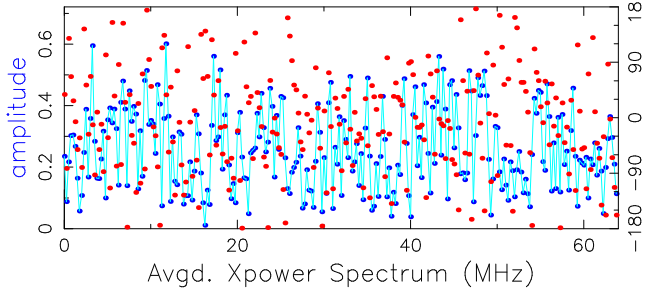


Fringe quality 0

SNR 5.7
 Int time 357.812
 Amp 0.126
 Phase 66.7
 PFD 9.7e-01
 Delays (us)
 SBD 0.968862
 MBD -0.006711
 Fringe rate (Hz)
 0.567215
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

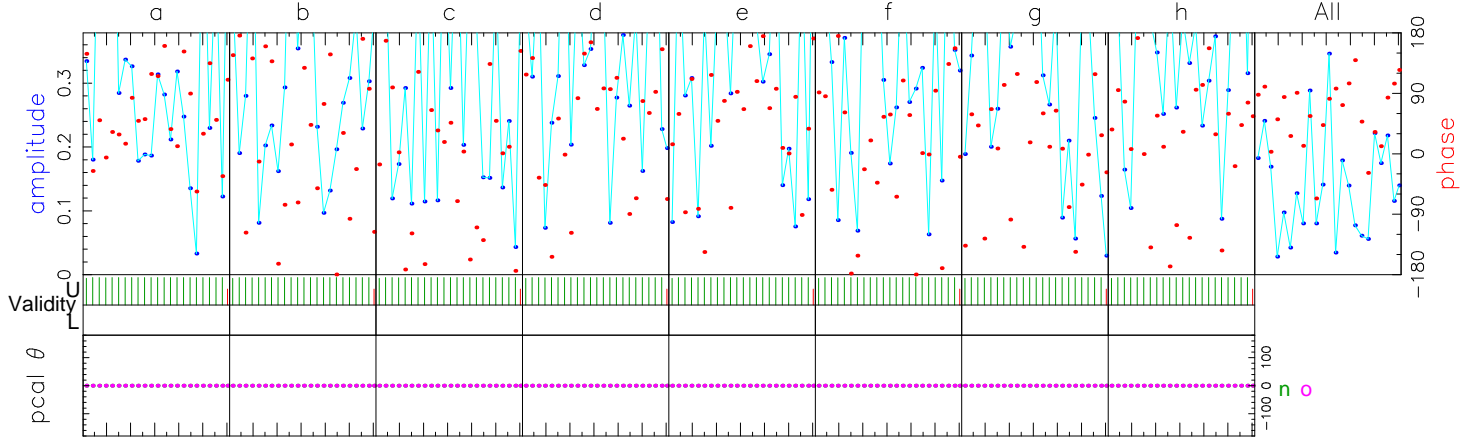


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074501.54
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040708
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0		
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.83735804718E+03	Apriori delay (usec)	1.83639600857E+03	Resid mbdelay (usec)	-6.71139E-03	+/-	1.9E-04
Sband delay (usec)	1.83736487032E+03	Apriori clock (usec)	-2.1183514E+01	Resid sbdelay (usec)	9.68862E-01	+/-	1.5E-03
Phase delay (usec)	1.83639601072E+03	Apriori clockrate (us/s)	6.0000003E-07	Resid phdelay (usec)	2.15039E-06	+/-	6.5E-07
Delay rate (us/s)	-4.11307139298E-01	Apriori rate (us/s)	-4.11313724101E-01	Resid rate (us/s)	6.58480E-06	+/-	3.2E-09
Total phase (deg)	130.9	Apriori accel (us/s/s)	-5.30713525656E-06	Resid phase (deg)	66.7	+/-	20.2

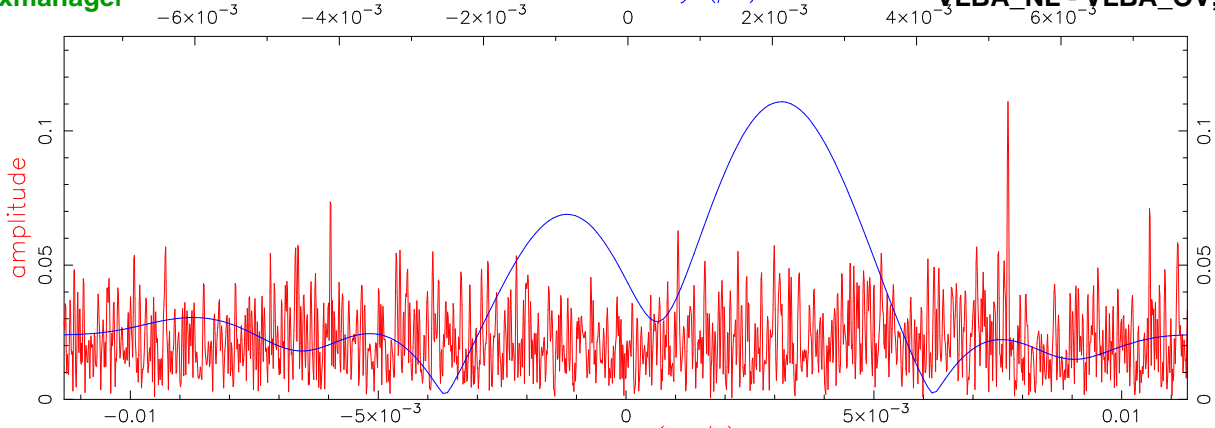
ph/seg (deg)	49.4	Theor.	48.5	Amplitude	0.126 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	80.5	48.5	Search (2048X32)	0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	31.7	28.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	51.9	49.9	Inc. seg. avg.	0.120	Sample rate(MSamp/s): 128	dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.	0.120	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

n: az 90.8 el 85.9 pa -84.2 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 3138.915 4.691 simultaneous interpolator

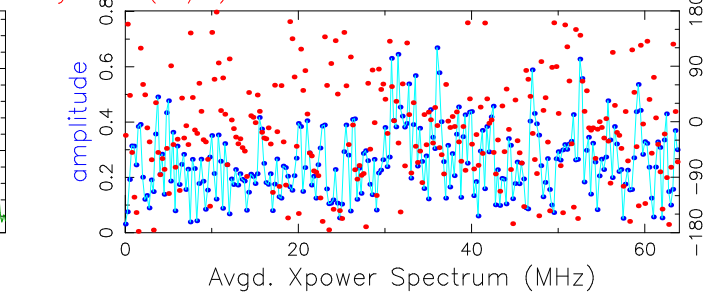
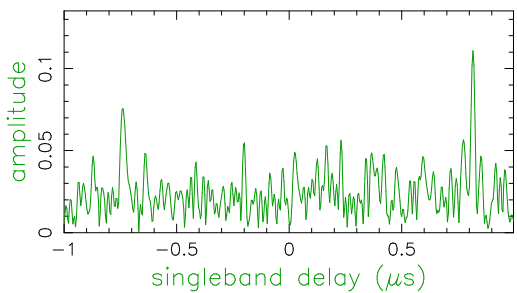
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/no..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/no.W.278.11VBZA

multiband delay (μ s)

Fringe quality 0

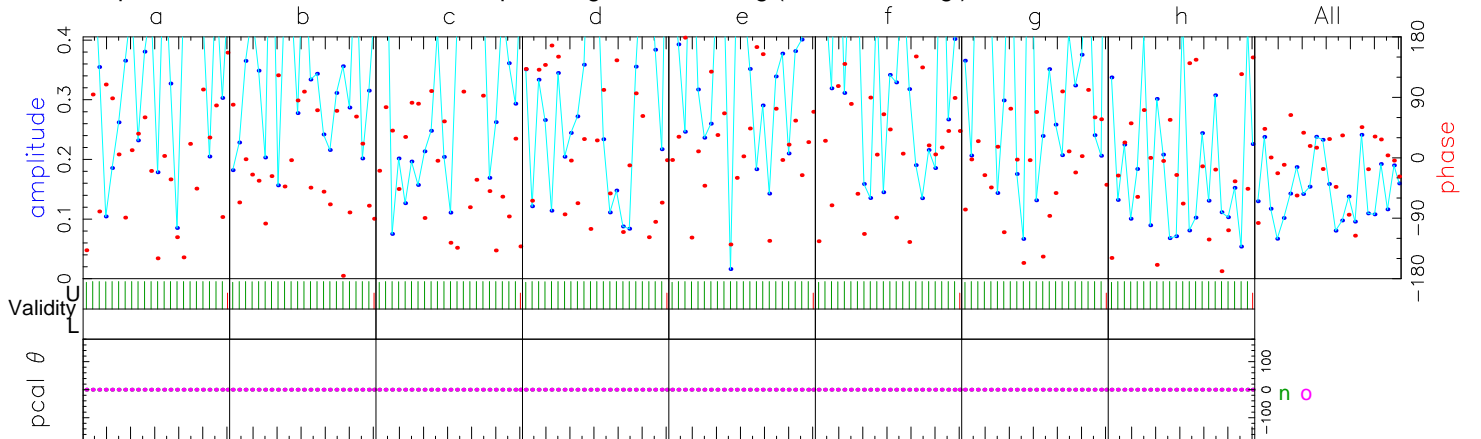


SNR 5.7
Int time 357.812
Amp 0.135
Phase 4.1
PFD 9.1e-01
Delays (us)
SBD 0.816489
MBD 0.002123
Fringe rate (Hz)
0.664748
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074501.54
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040711
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec

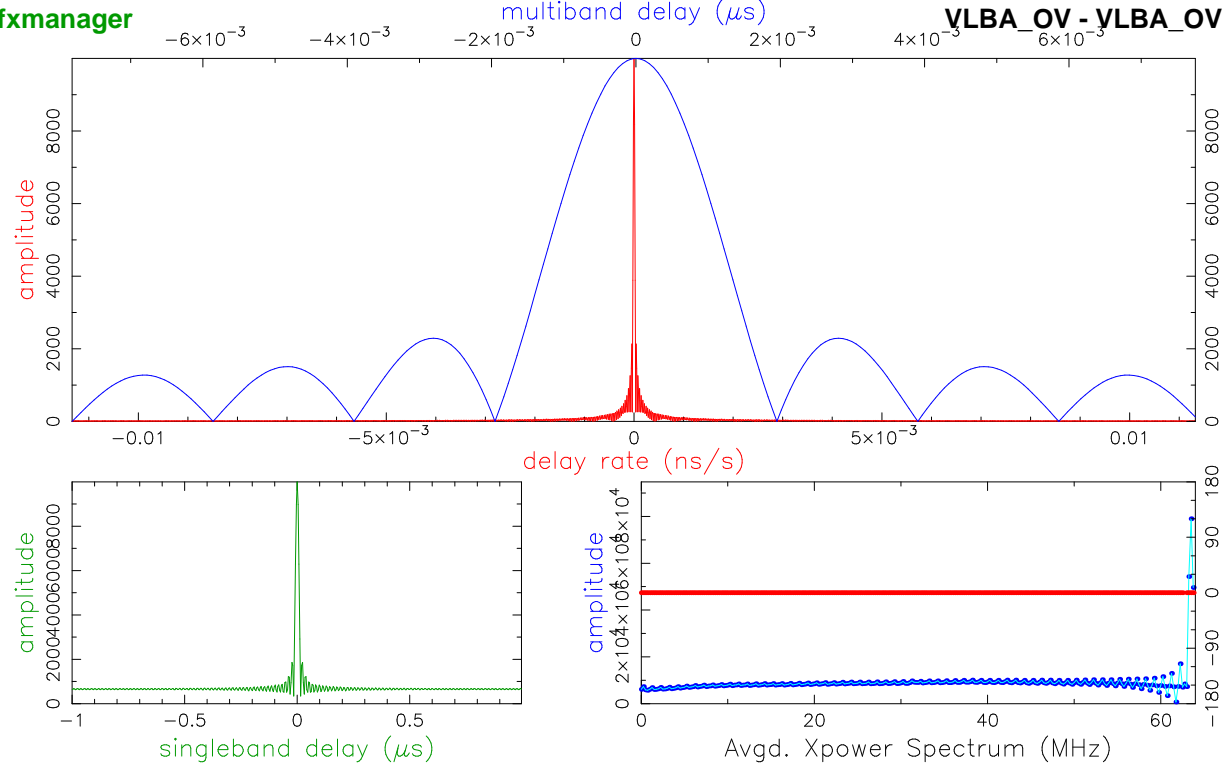


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	7.8	-10.4	-5.0	-11.3	21.4	32.1	-3.1	-39.9		
n	0.1	0.2	0.1	0.0	0.2	0.2	0.3	0.1	Ampl.	0.1
o	67.9	70.4	429.1	262.2	466.3	410.0	465.7	74.1	Sbd box	466.0
n	700/0	700/0	700/0	700/0	700/0	700/0	700/0	700/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	
									Tracks	

Group delay (usec)(sbd) 1.83721063180E+03 Apriori delay (usec) 1.83639600857E+03 Resid mbdelay (usec) 2.12323E-03 +/- 1.9E-04
 Sband delay (usec) 1.83721249732E+03 Apriori clock (usec) -2.1183514E+01 Resid sbdelay (usec) 8.16489E-01 +/- 1.5E-03
 Phase delay (usec) 1.83639600870E+03 Apriori clockrate (us/s) 6.0000003E-07 Resid phdelay (usec) 1.31325E-07 +/- 6.4E-07
 Delay rate (us/s) -4.11306007040E-01 Apriori rate (us/s) -4.11313724101E-01 Resid rate (us/s) 7.71706E-06 +/- 3.1E-09
 Total phase (deg) 68.3 Apriori accel (us/s/s) -5.30713525656E-06 Resid phase (deg) 4.1 +/- 20.0

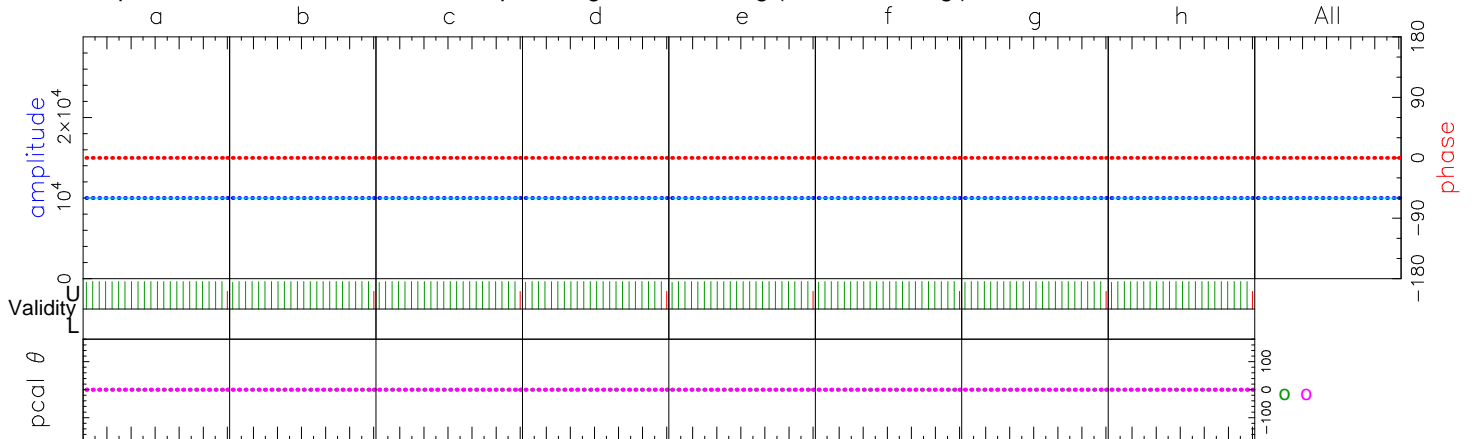
RMS Theor. Amplitude 0.135 +/- 0.024 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 47.8 47.9 Search (2048X32) 0.108 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 58.5 83.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 24.5 28.3 Inc. seg. avg. 0.135 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 55.5 49.3 Inc. frq. avg. 0.127 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

n: az 90.8 el 85.9 pa -84.2 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 3138.915 4.691 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/no..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/no.W.296.11VBZA



Fringe quality 9
SNR 518011.6
Int time 358.826
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074500.51
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040702
2020:247:085004
RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec

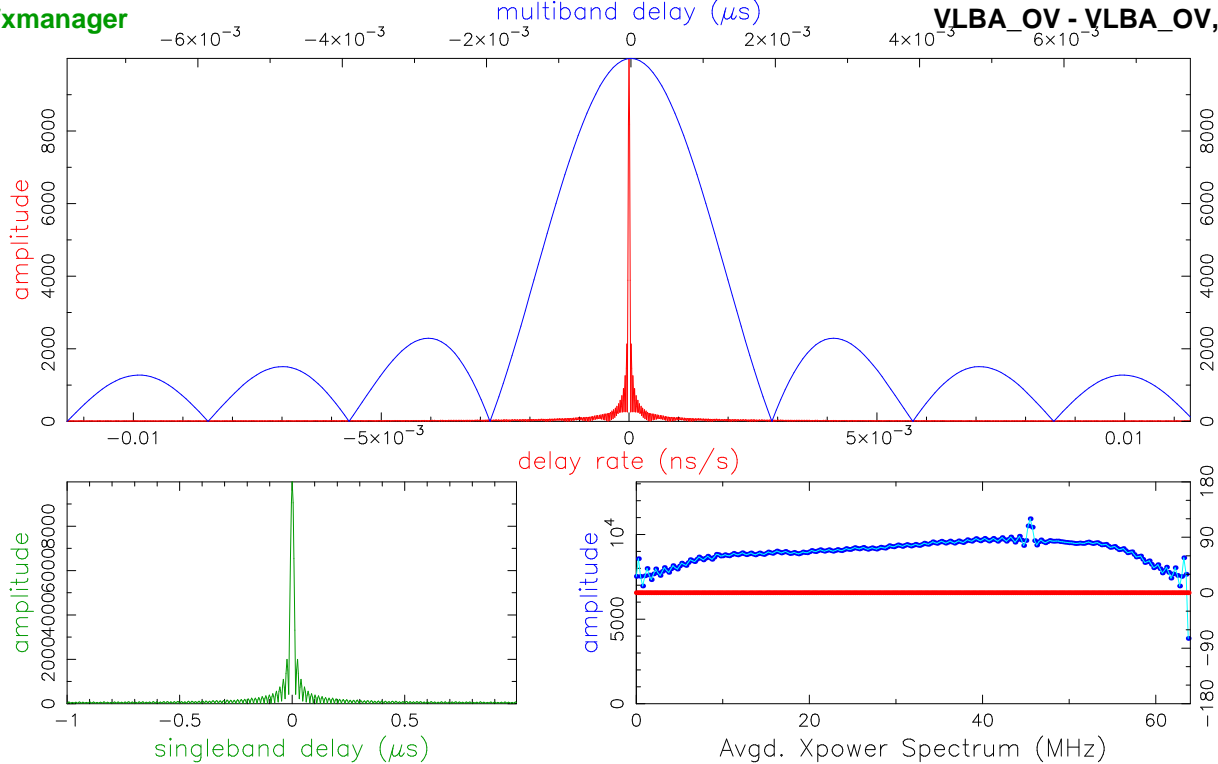


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	10000.0	10000.0
o	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
o	1000	1000	1000	1000	1000	1000	1000	1000	257.0	257.0
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	10000.0	10000.0
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	10000.0	10000.0
o	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
o	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	10000.0	10000.0
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	10000.0	10000.0

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.1E-09
Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.7E-08
Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 7.1E-12
Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 3.4E-14
Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

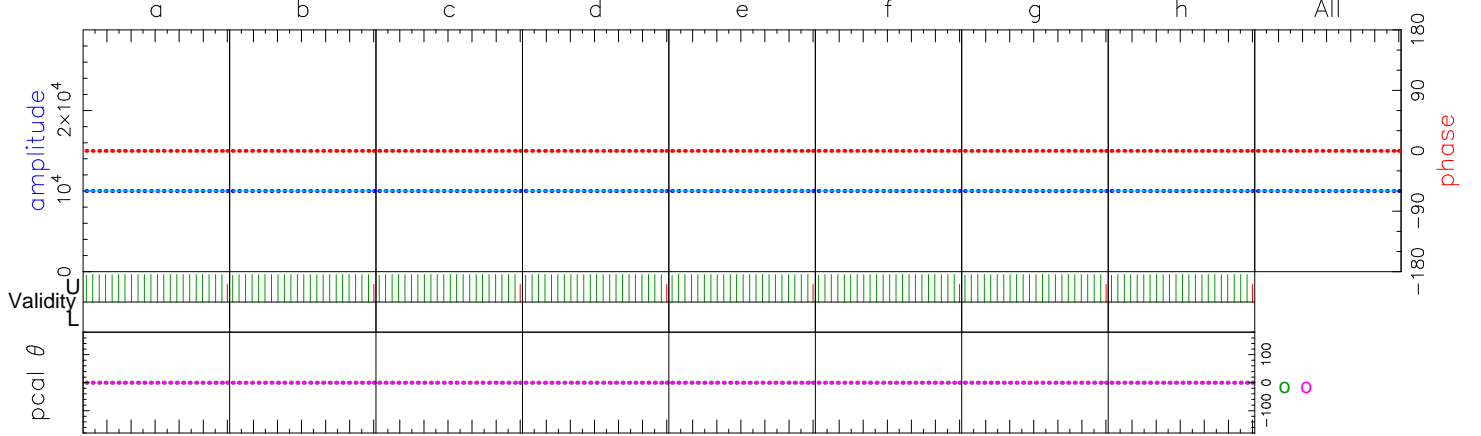
RMS Theor. Amplitude 9999.999 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
ph/seg (deg) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

o: az 69.9 el 64.9 pa -88.9 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oo.W.245.11VBZA



Fringe quality 9
SNR 518011.6
Int time 358.826
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074500.51
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040705
2020:247:085004
RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	Ampl.	10000.0
o	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
o	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.1E-09
Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.7E-08
Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 7.1E-12
Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 3.4E-14
Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
ph/seg (deg) 0.0 0.0 Search (2048X32) 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 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

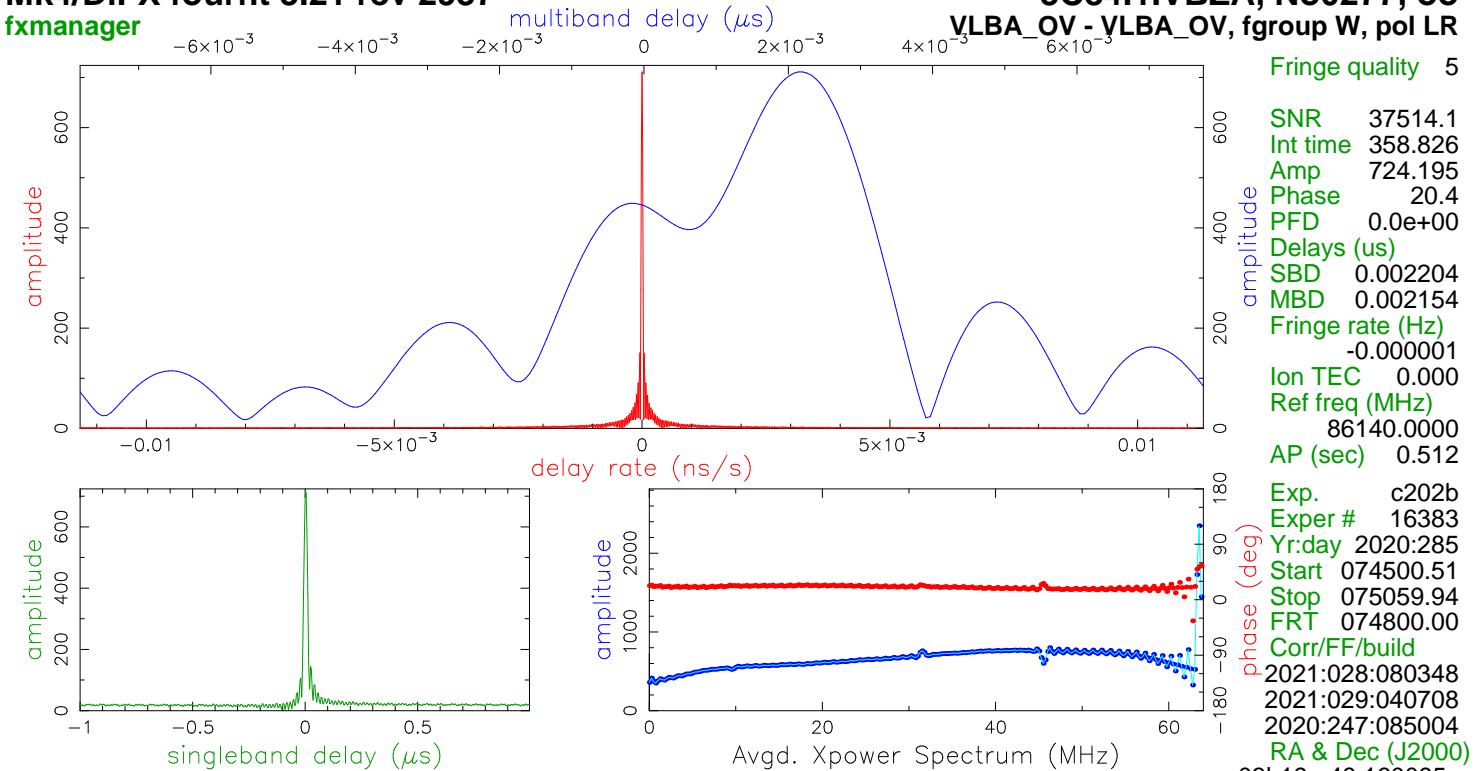
o: az 69.9 el 64.9 pa -88.9 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oo.W.265.11VBZA

Mk4/DiFX fourfit 3.21 rev 2937

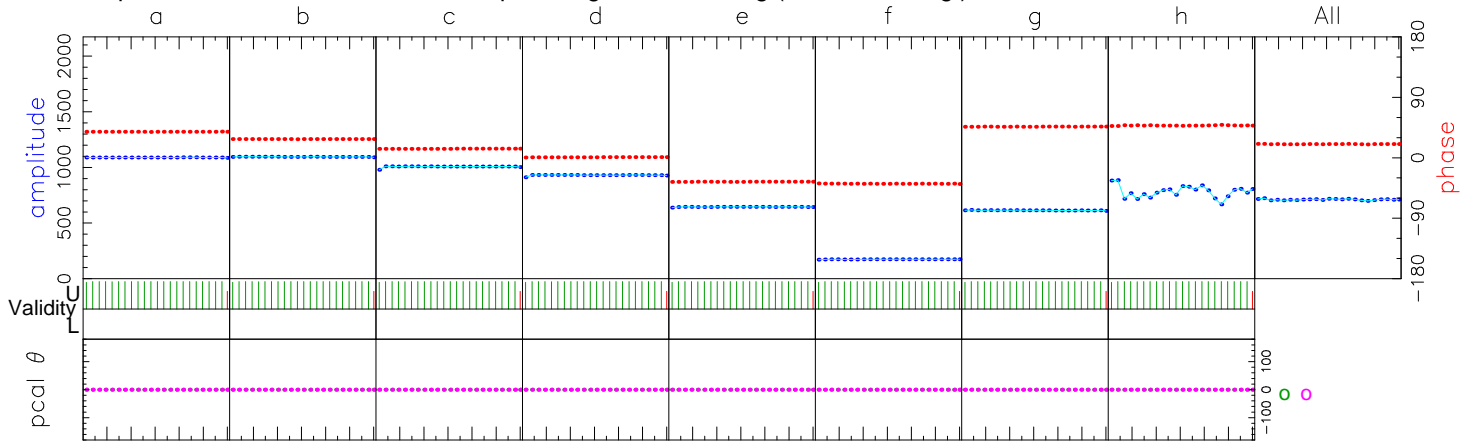
fxmanager

3C84.1VBZA, No0277, oo

VLBA_OV - VLBA_OV, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



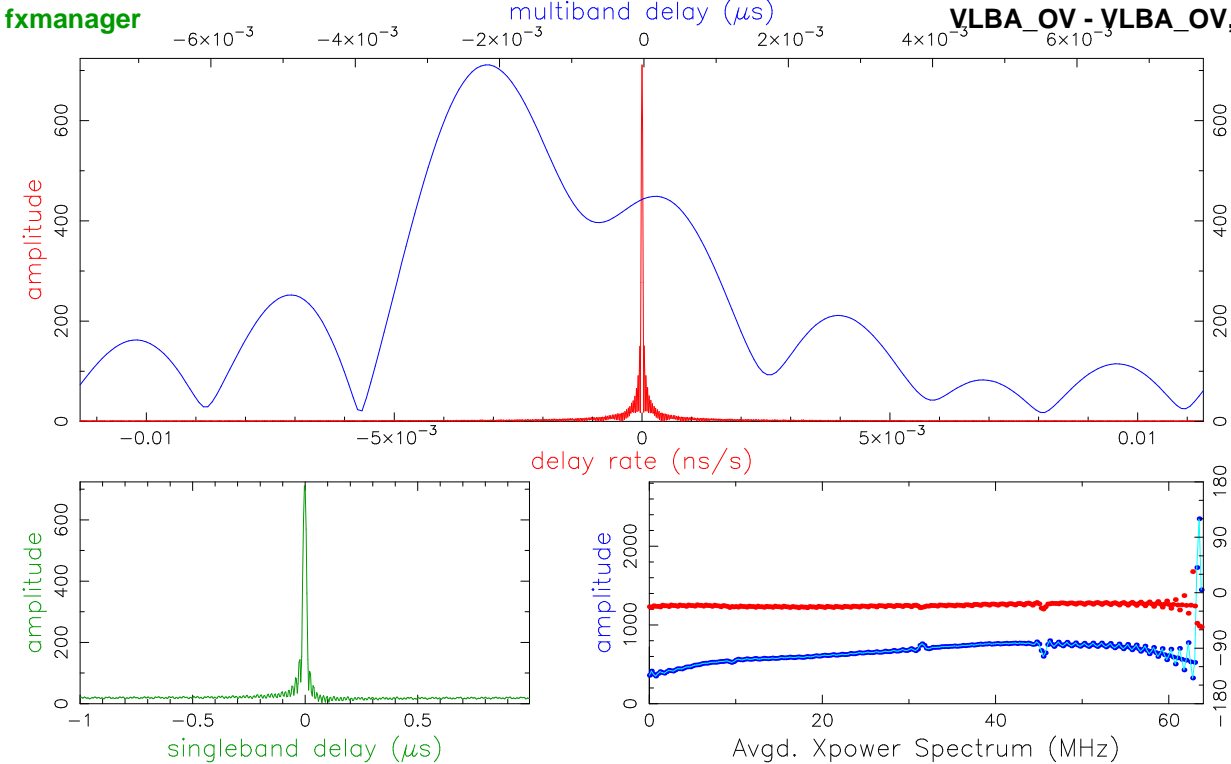
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	38.7	27.9	13.4	0.9	-35.7	-38.6	46.3	48.0	Phase	20.4
	1088.9	1094.7	1006.9	930.1	644.8	174.5	614.1	782.0	Ampl.	792.0
	257.4	257.1	257.4	257.3	257.2	259.2	257.4	257.6	Sbd box	257.6
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.15368750000E-03		Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.15369E-03	+/-	2.9E-08		
Sband delay (usec)	2.20450000000E-03		Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	2.20450E-03	+/-	2.3E-07		
Phase delay (usec)	6.56621626167E-07		Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	6.56622E-07	+/-	9.9E-11		
Delay rate (us/s)	-1.41711523917E-11		Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-1.41712E-11	+/-	4.7E-13		
Total phase (deg)		20.4	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	20.4	+/-	0.0		
	RMS	Theor.	Amplitude	724.195 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.2	0.0	Search (2048X32)	696.675	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	1.9	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	38.5	0.0	Inc. seg. avg.	711.281	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011		
amp/frq (%)	41.3	0.0	Inc. frq. avg.	792.010	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00	
o: az 69.9 el 64.9 pa -88.9			o: az 69.9 el 64.9 pa -88.9		u,v (fr/asec) 0.000 0.000					simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oo..1VBZA		Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oo.W.283.1VBZA					

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, oo

VLBA_OV - VLBA_OV, fgroup W, pol RL

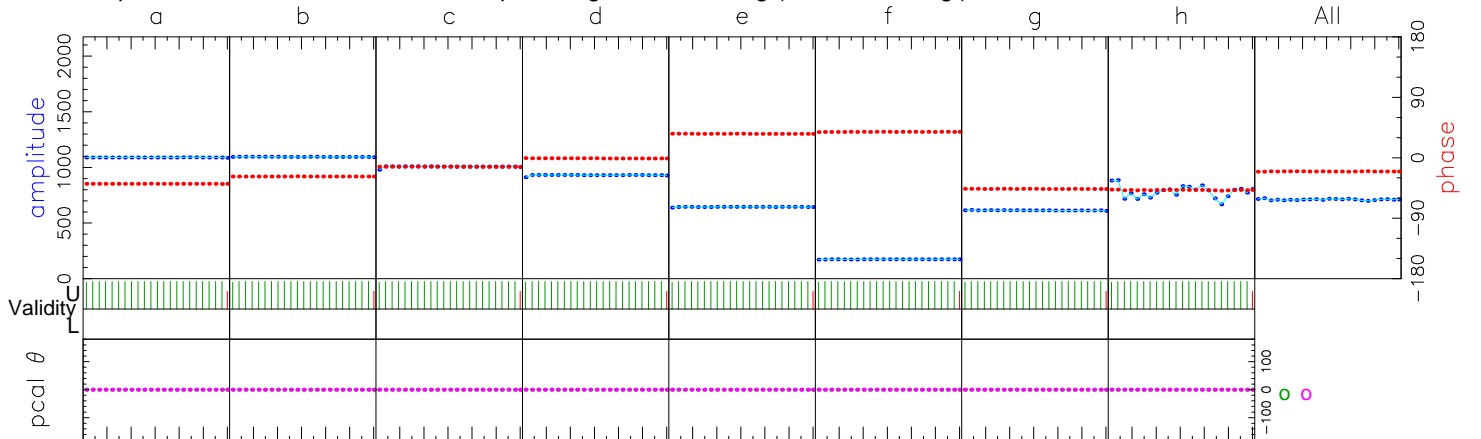


Fringe quality 5

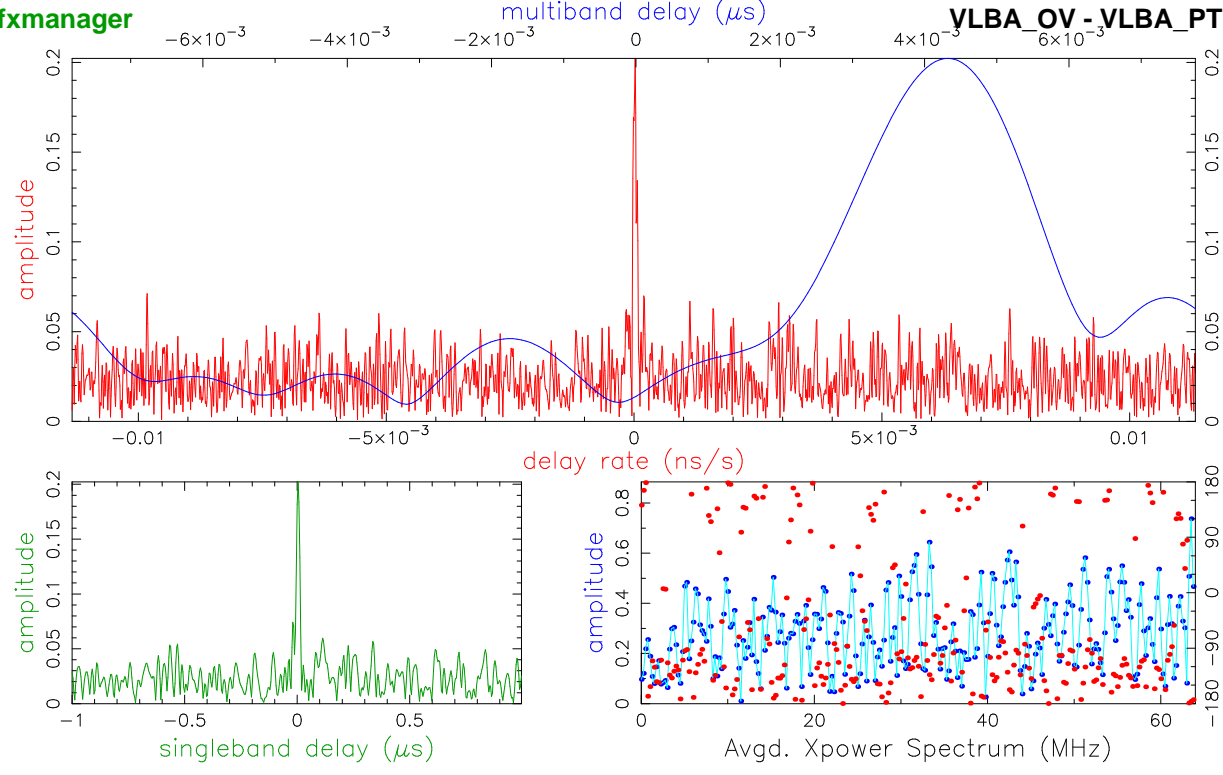
SNR 37514.1
 Int time 358.826
 Amp 724.195
 Phase -20.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.002204
 MBD -0.002154
 Fringe rate (Hz) 0.000001
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040712
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec

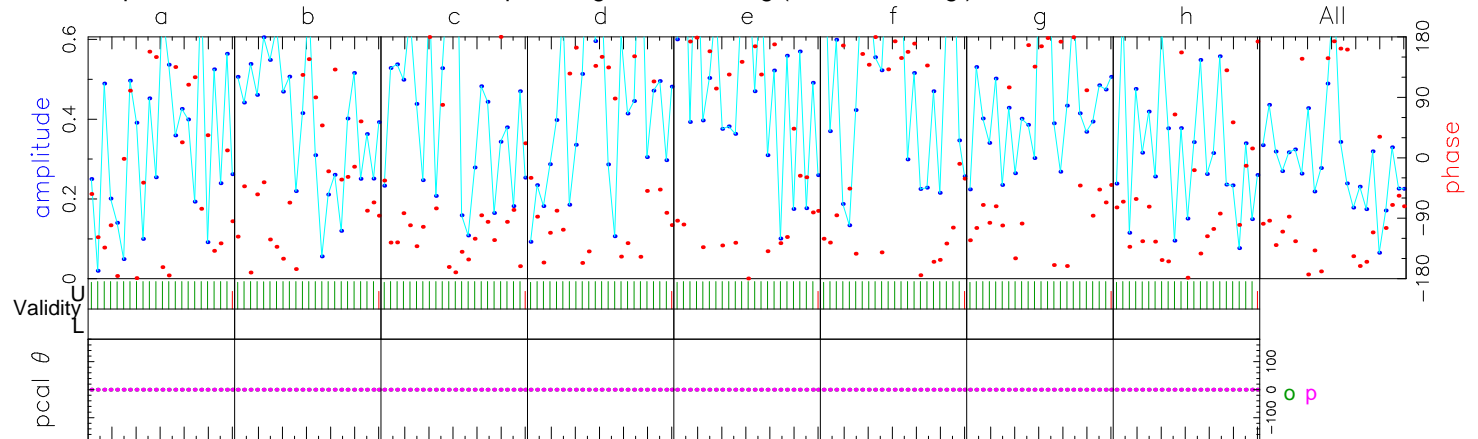


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-38.7	-27.9	-13.4	-0.9	35.7	38.6	-46.3	-48.0	Phase	-20.4	
	1088.9	1094.7	1006.9	930.1	644.8	174.5	614.1	782.0	Ampl.	792.0	
	256.6	256.9	256.6	256.7	256.8	254.8	256.6	256.4	Sbd box	256.4	
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
o:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
o:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Chan ids		
									Tracks		
Group delay (usec)(sbd)	-2.15368750000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-2.15369E-03	+/- 2.9E-08	
Sband delay (usec)	-2.20450000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-2.20450E-03	+/- 2.3E-07	
Phase delay (usec)	-6.56621626107E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-6.56622E-07	+/- 9.9E-11	
Delay rate (us/s)	1.41711523917E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		1.41712E-11	+/- 4.7E-13	
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-20.4	+/- 0.0	
	RMS	Theor.	Amplitude	724.195 +/- 0.019	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	0.2	0.0	Search (2048X32)	696.675	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-1.000	1.000	
amp/seg (%)	1.9	0.0	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	38.5	0.0	Inc. seg. avg.	711.281	Sample rate(MISamp/s): 128		dr window (ns/s)		-0.011	0.011	
amp/frq (%)	41.3	0.0	Inc. frq. avg.	792.010	Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
o: az 69.9 el 64.9 pa -88.9			o: az 69.9 el 64.9 pa -88.9			u,v (fr/asec) 0.000 0.000			simultaneous interpolator		
Control file: cf_1234_gmva			Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oo..11VBZA			Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oo.W.302.11VBZA					

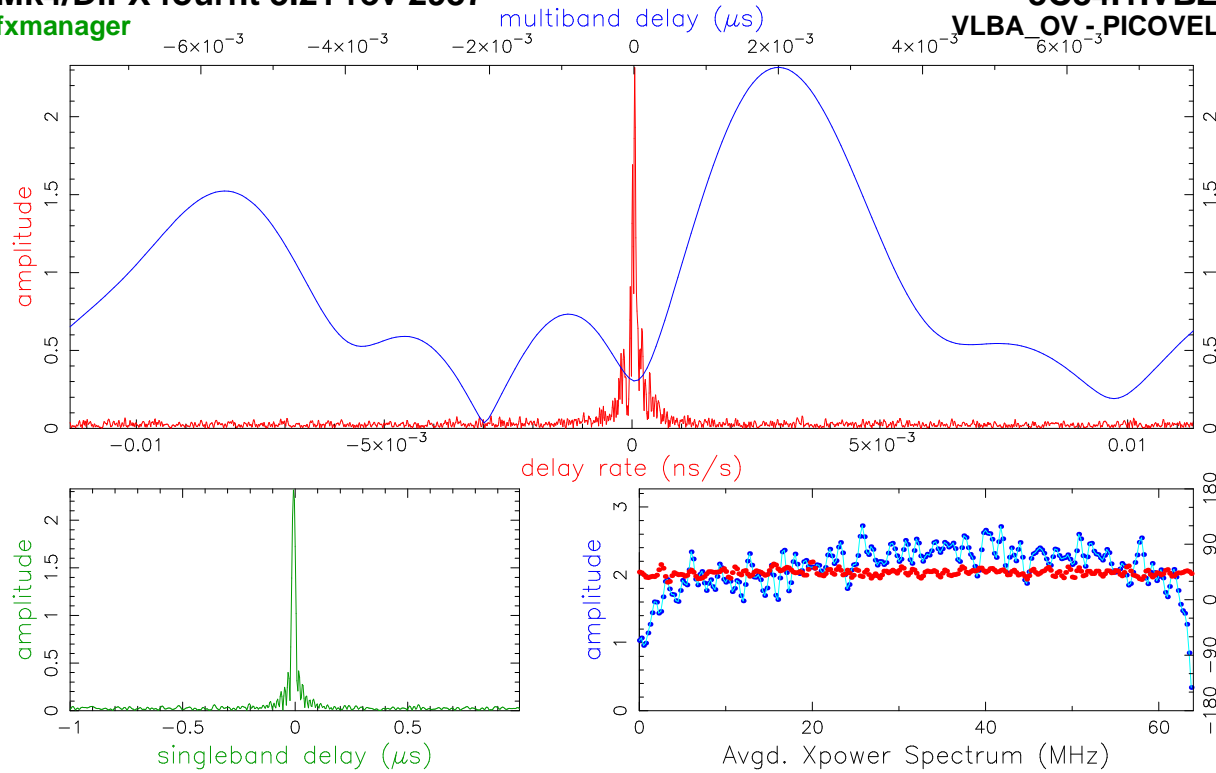


Fringe quality 9
SNR 10.5
Int time 358.826
Amp 0.202
Phase -143.3
PFD 5.0e-17
Delays (us)
SBD 0.003987
MBD 0.004324
Fringe rate (Hz) 0.002179
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074500.51
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040703
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	-165.5	-95.0	-132.0	-149.0	-163.2	-165.8	-138.5	-105.3	Phase	-143.3		
	0.1	0.1	0.3	0.2	0.3	0.3	0.2	0.2	Ampl.	0.2		
	202.4	371.9	257.3	257.5	258.1	258.4	258.4	258.3	Sbd box	258.0		
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used			
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC			
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
p	1000	1000	1000	1000	1000	1000	1000	1000				
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids			
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Chan ids			
									Tracks			
Group delay (usec)(sbd)	-8.30285291757E+02		Apriori delay (usec)		-8.30289615913E+02		Resid mbdelay (usec)		4.32416E-03	+/- 1.0E-04		
Sband delay (usec)	-8.30285629413E+02		Apriori clock (usec)		2.1279760E+01		Resid sbdelay (usec)		3.98650E-03	+/- 8.2E-04		
Phase delay (usec)	-8.30289620532E+02		Apriori clockrate (us/s)		-5.0000000E-07		Resid phdelay (usec)		-4.61954E-06	+/- 3.5E-07		
Delay rate (us/s)	1.34583690923E-01		Apriori rate (us/s)		1.34583665628E-01		Resid rate (us/s)		2.52948E-08	+/- 1.7E-09		
Total phase (deg)			Apriori accel (us/s/s)		7.62682438396E-06		Resid phase (deg)		-143.3	+/- 10.9		
	RMS	Theor.	Amplitude	0.202 +/- 0.019		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	58.7	26.2	Search (2048X32)	0.200		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	81.7	45.8	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	29.9	15.5	Inc. seg. avg.	0.273		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	36.9	27.0	Inc. frq. avg.	0.212		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
o: az 69.9 el 64.9 pa -88.9		p: az 60.7 el 71.2 pa -106.4		u,v (fr/asec) -1018.003 815.488						simultaneous interpolator		
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/op..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/op.W.250.11VBZA												

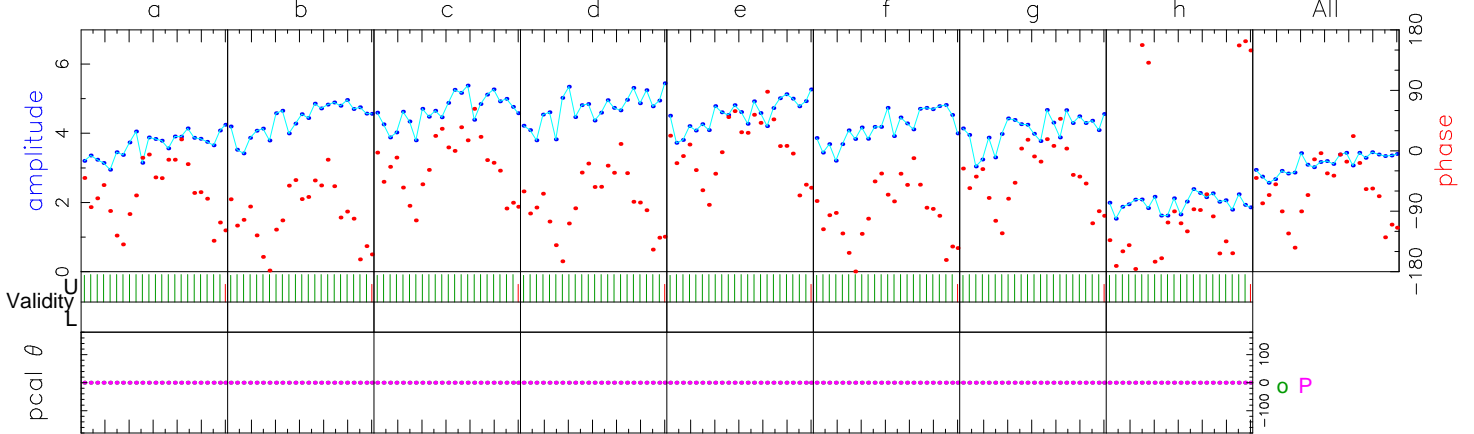


Fringe quality 3

SNR 120.6
Int time 358.454
Amp 2.330
Phase -57.9
PFD 0.0e+00
Delays (us)
SBD -0.006843
MBD 0.002034
Fringe rate (Hz)
0.005087
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074500.51
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040703
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec

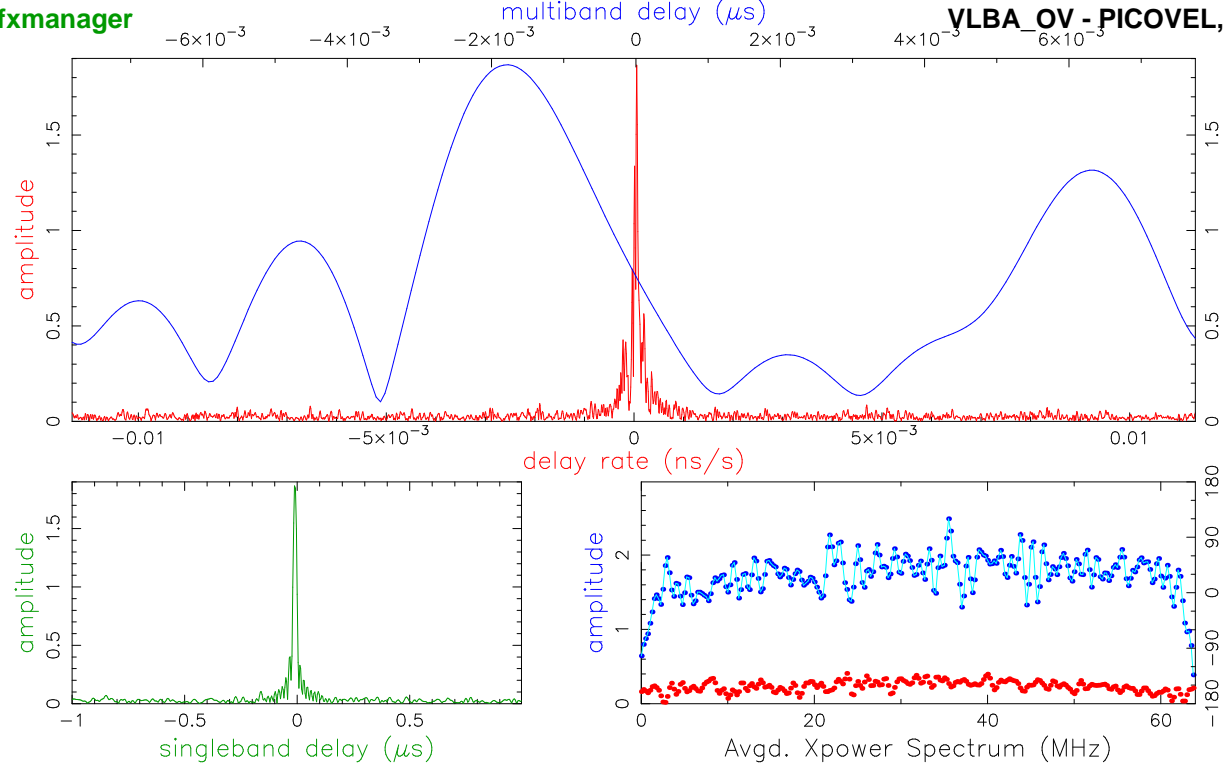


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-60.6	-92.5	-19.4	-76.3	3.3	-90.7	-37.2	-142.2	Phase	-57.9
	2.7	3.3	3.5	3.4	3.3	3.1	3.0	1.4	Ampl.	3.0
	254.9	255.0	255.1	254.8	254.5	254.8	254.7	253.2	Sbd box	255.2
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 9.50146492653E+03 Apriori delay (usec) 9.50147851798E+03 Resid mbdelay (usec) 2.03355E-03 +/- 9.0E-06
 Sband delay (usec) 9.50147167448E+03 Apriori clock (usec) 2.1631065E+01 Resid sbdelay (usec) -6.84350E-03 +/- 7.1E-05
 Phase delay (usec) 9.50147851611E+03 Apriori clockrate (us/s) 2.9999999E-07 Resid phdelay (usec) -1.86849E-06 +/- 3.1E-08
 Delay rate (us/s) 1.40130154832E+00 Apriori rate (us/s) 1.40130148927E+00 Resid rate (us/s) 5.90498E-08 +/- 1.5E-10
 Total phase (deg) 136.1 Apriori accel (us/s/s) -5.02485621044E-05 Resid phase (deg) -57.9 +/- 1.0

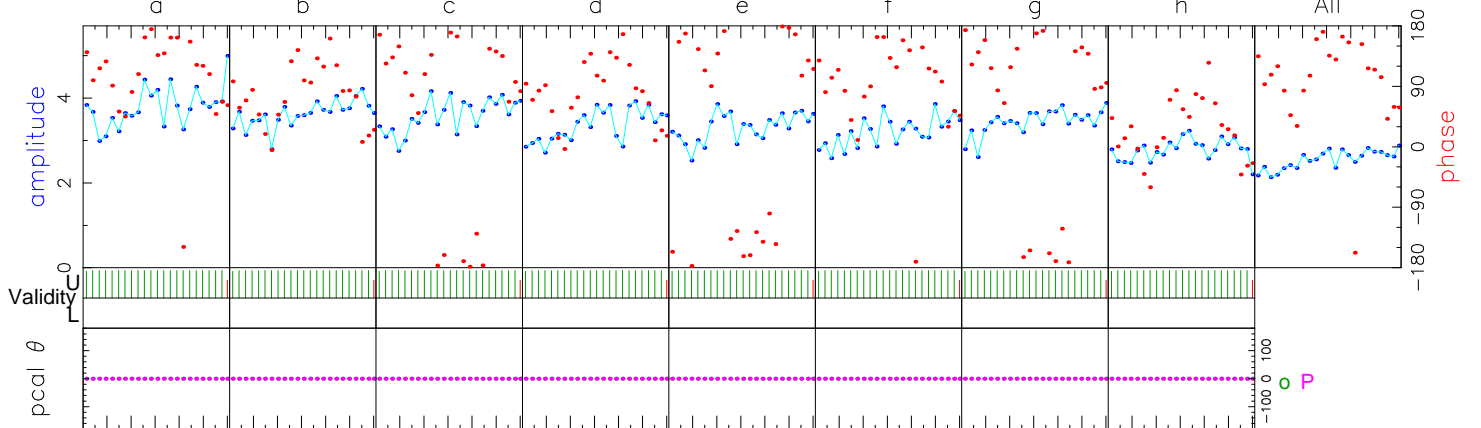
RMS Theor. Amplitude 2.330 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 43.6 2.3 Search (2048X32) 2.261 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 36.3 4.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 50.6 1.3 Inc. seg. avg. 3.130 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 38.5 2.3 Inc. frq. avg. 2.970 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

o: az 69.9 el 64.9 pa -88.9 P: az 302.5 el 28.4 pa 64.7 u,v (fr/asec) -10811.920 -3385.256 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oP..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oP.W.252.11VBZA



Fringe quality 3
SNR 98.4
Int time 358.454
Amp 1.901
Phase 113.6
PFD 0.0e+00
Delays (us)
SBD -0.009987
MBD -0.001739
Fringe rate (Hz) 0.005122
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074500.51
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040708
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	118.6	79.0	142.5	82.9	175.9	106.6	148.4	26.9		
Sband delay (usec)	2.8	2.7	2.6	2.4	2.4	2.3	2.5	2.0		
Phase delay (usec)	254.0	254.2	254.0	253.9	253.7	253.9	253.3	252.3		
Delay rate (us/s)										
Total phase (deg)			307.6							
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)										

ph/seg (deg) 44.2 2.8
amp/seg (%) 35.6 4.9
ph/frq (deg) 51.1 1.6
amp/frq (%) 32.1 2.9
RMS Theor. Amplitude 1.901 +/- 0.019
Search (2048X32) 1.798
Interp. 0.000
Inc. seg. avg. 2.541
Inc. frq. avg. 2.467
Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
Pcal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Sample rate(MISamp/s): 128
Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite
sb window (us) -1.000 1.000
mb window (us) -0.008 0.008
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00
o: az 69.9 el 64.9 pa -88.9 P: az 302.5 el 28.4 pa 64.7 u,v (fr/asec) -10811.920 -3385.256 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oP..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oP.W.279.11VBZA

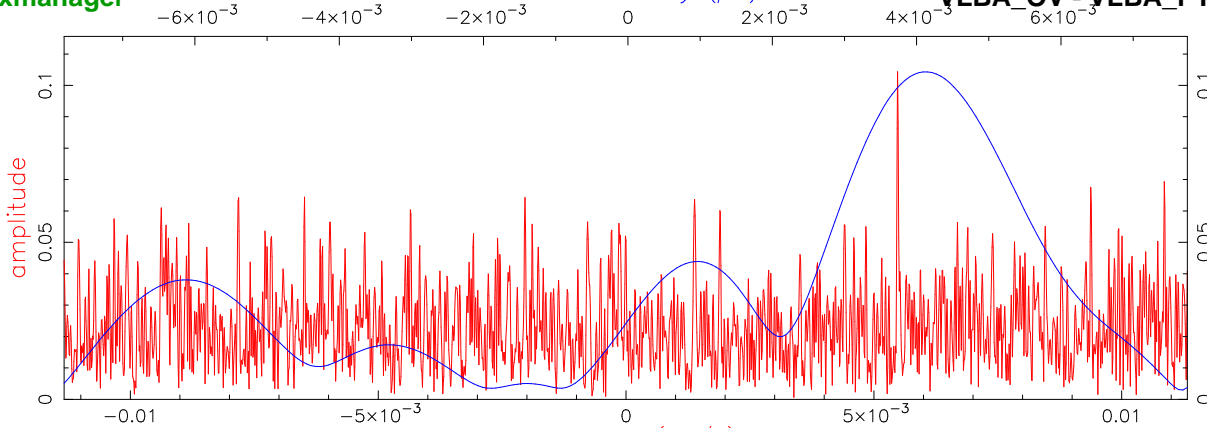
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, op

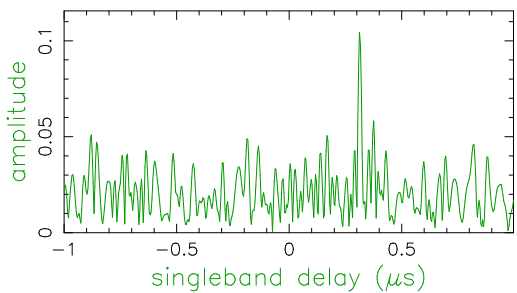
VLBA_OV - VLBA_PT, fgroup W, pol LR

multiband delay (μ s)

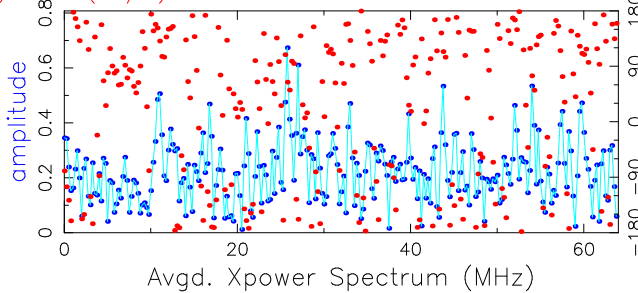


Fringe quality 0

SNR 5.4
Int time 358.826
Amp 0.116
Phase 100.5
PFD 1.0e+00
Delays (us)
SBD 0.313285
MBD 0.004106
Fringe rate (Hz) 0.472825
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

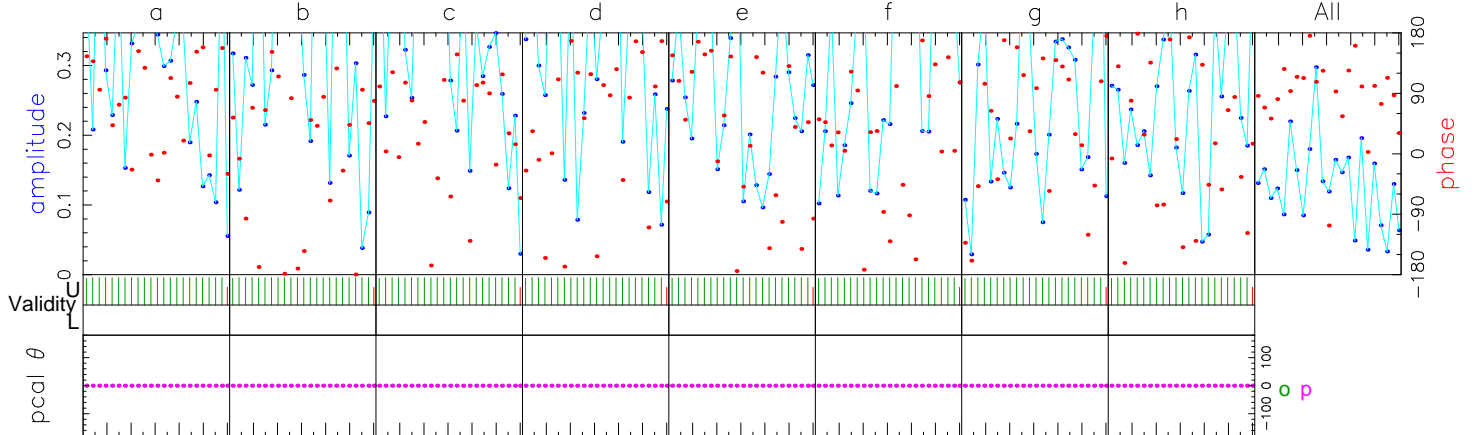


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074500.51
Stop 075059.94
FRT 074800.00
Corr/FF/build 2021:028:080348
2021:029:040710
2020:247:085004
RA & Dec (J2000) 03h19m48.160095s +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.29973009536E+02									
Sband delay (usec)	-8.29976330913E+02									
Phase delay (usec)	-8.30289612671E+02									
Delay rate (us/s)	1.34589154653E-01									
Total phase (deg)			-84.8							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
pcal θ										
Search (2048X32)										
Interp.										
Inc. seg. avg.										
Inc. frq. avg.										
PC period (AP's) 5, 5										
SampCntNorm: enabled										

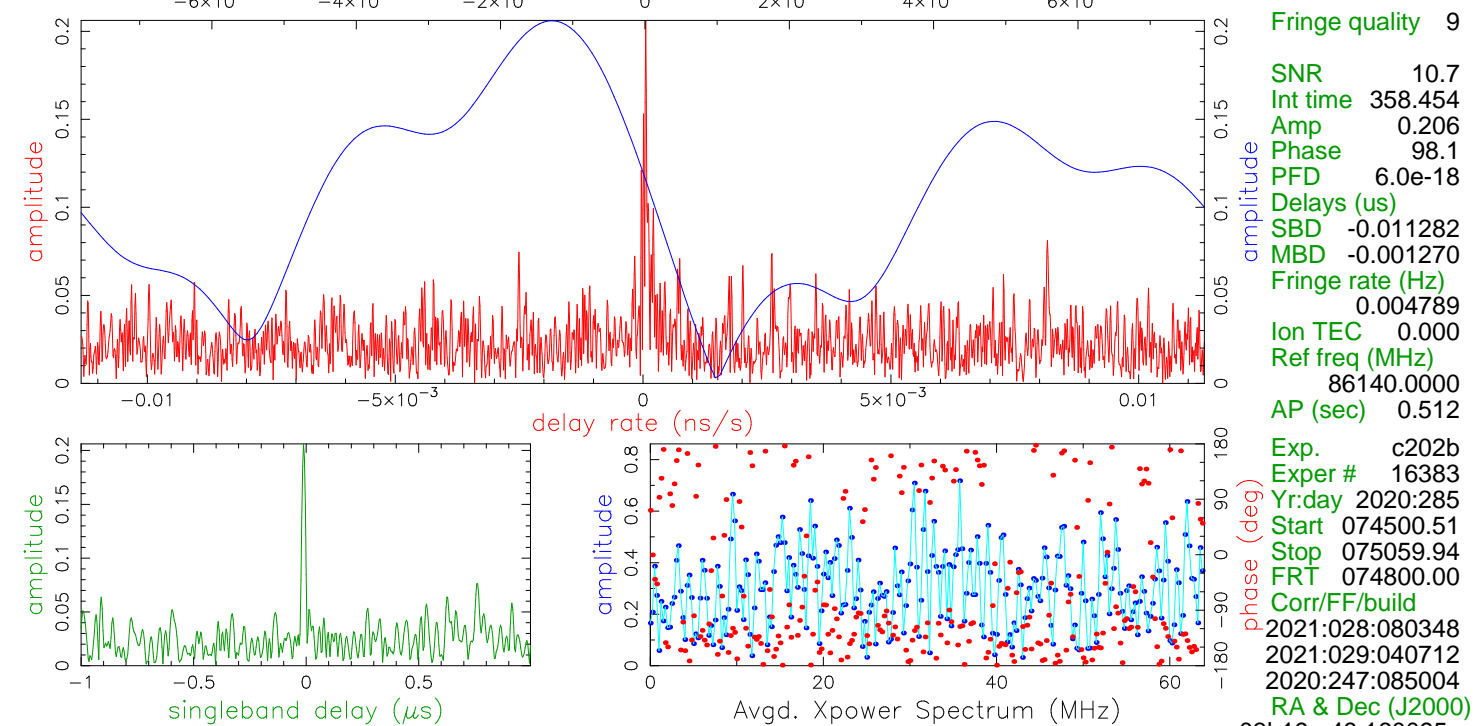
ph/seg (deg) 49.1 50.6
amp/seg (%) 63.3 88.4
ph/frq (deg) 34.9 29.9
amp/frq (%) 48.4 52.1
o: az 69.9 el 64.9 pa -88.9
p: az 60.7 el 71.2 pa -106.4
u,v (fr/asec) -1018.003 815.488
Control file: cf_1234_gmva
Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/op..11VBZA
Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/op.W.288.11VBZA
simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

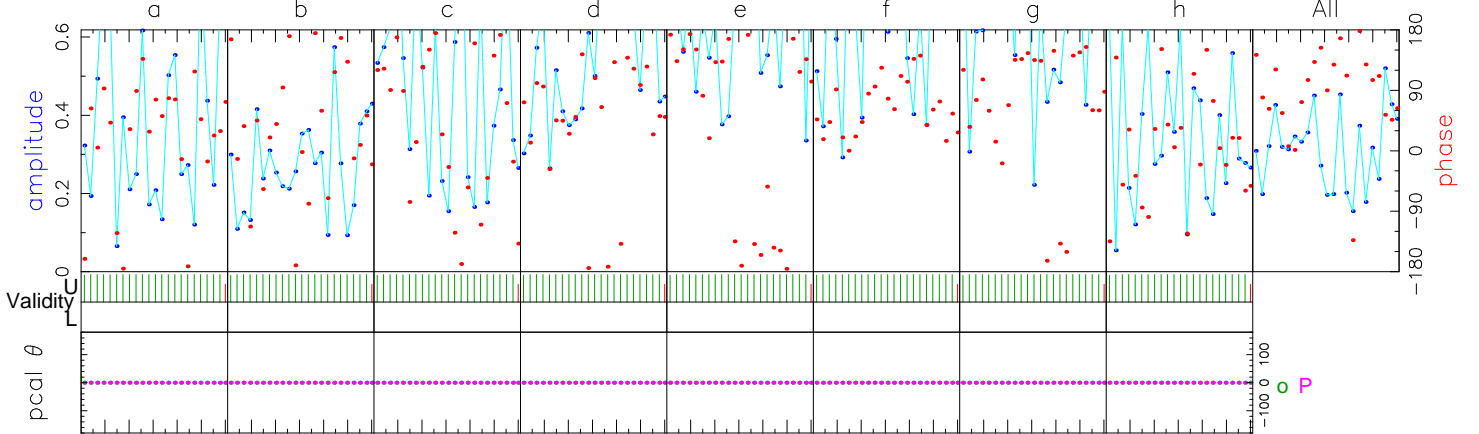
fxmanager

3C84.1VBZA, No0277, oP

VLBA_OV - PICOVEL, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

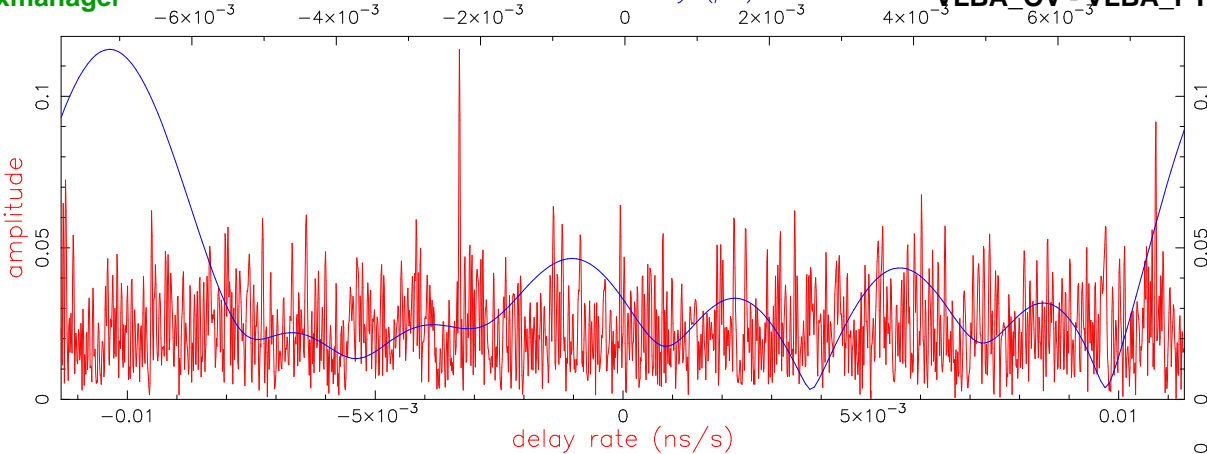
Group delay (usec)(sbd)	9.50146162337E+03	Apriori delay (usec)	9.50147851798E+03	Resid mbdelay (usec)	-1.26961E-03	+/-	1.0E-04
Sband delay (usec)	9.50146723598E+03	Apriori clock (usec)	2.1631065E+01	Resid sbdelay (usec)	-1.12820E-02	+/-	8.1E-04
Phase delay (usec)	9.50147852114E+03	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	3.16238E-06	+/-	3.5E-07
Delay rate (us/s)	1.40130154487E+00	Apriori rate (us/s)	1.40130148927E+00	Resid rate (us/s)	5.55934E-08	+/-	1.7E-09
Total phase (deg)	292.1	Apriori accel (us/s/s)	-5.02485621044E-05	Resid phase (deg)	98.1	+/-	10.7

ph/seg (deg)	53.2	Theor.	25.7	Amplitude	0.206 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	71.7	Search (2048X32)	0.204	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	62.8	Inc. seg. avg.	0.287	Inc. frq. avg.	0.281	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	86.3	Inc. frq. avg.	0.281	Sample rate (MSamp/s): 128		Data rate (Mb/s): 2048	nlags: 256	dr window (ns/s) -0.011 0.011
								ion window (TEC) 0.00 0.00

o: az 69.9 el 64.9 pa -88.9 P: az 302.5 el 28.4 pa 64.7 u,v (fr/asec) -10811.920 -3385.256 simultaneous interpolator

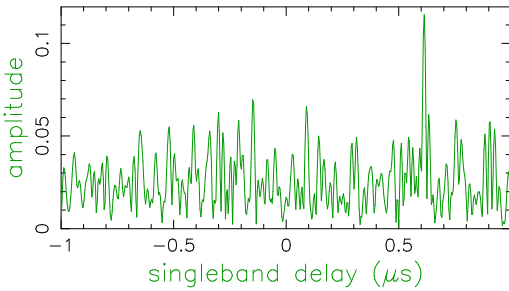
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oP..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oP.W.300.11VBZA

multiband delay (μs)

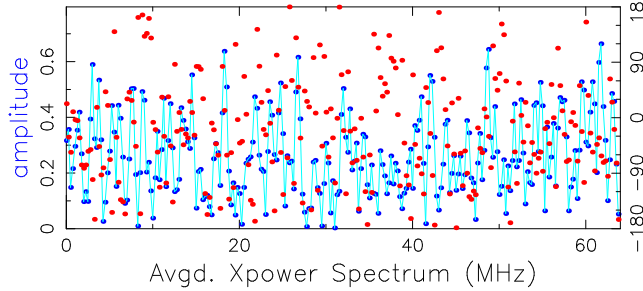


Fringe quality 0

SNR 6.0
 Int time 358.826
 Amp 0.120
 Phase -92.2
 PFD 4.2e-01
 Delays (us)
 SBD 0.612866
 MBD -0.007171
 Fringe rate (Hz)
 -0.284987
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

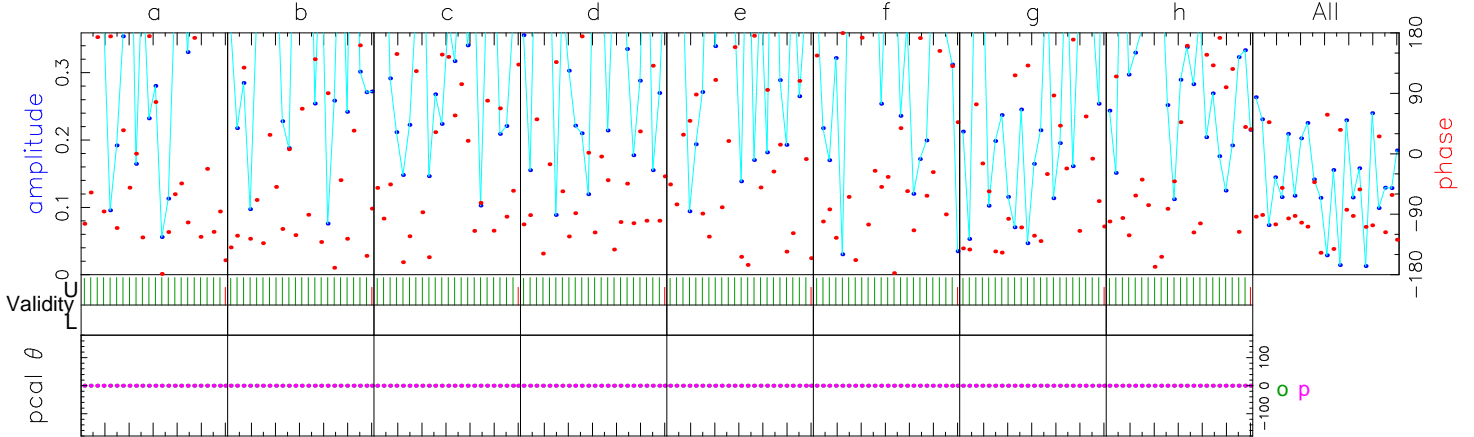


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040713
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.29671787254E+02	Apriori delay (usec)	-8.30289615913E+02	Resid mbdelay (usec)	-7.17134E-03	+/-	1.8E-04
Sband delay (usec)	-8.29676750413E+02	Apriori clock (usec)	2.1279760E+01	Resid sbdelay (usec)	6.12866E-01	+/-	1.4E-03
Phase delay (usec)	-8.30289618884E+02	Apriori clockrate (us/s)	-5.0000000E-07	Resid phdelay (usec)	-2.97162E-06	+/-	6.2E-07
Delay rate (us/s)	1.34580357209E-01	Apriori rate (us/s)	1.34583665628E-01	Resid rate (us/s)	-3.30842E-06	+/-	3.0E-09
Total phase (deg)	-277.5	Apriori accel (us/s/s)	7.62682438396E-06	Resid phase (deg)	-92.2	+/-	19.1

ph/seg (deg)	62.0	Theor.	45.9	Amplitude	0.120 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	65.6		80.1	Search (2048X32)	0.111	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	24.0		27.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	38.9		47.2	Inc. seg. avg.	0.113	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.113	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

o: az 69.9 el 64.9 pa -88.9 p: az 60.7 el 71.2 pa -106.4 u,v (fr/asec) -1018.003 815.488 simultaneous interpolator

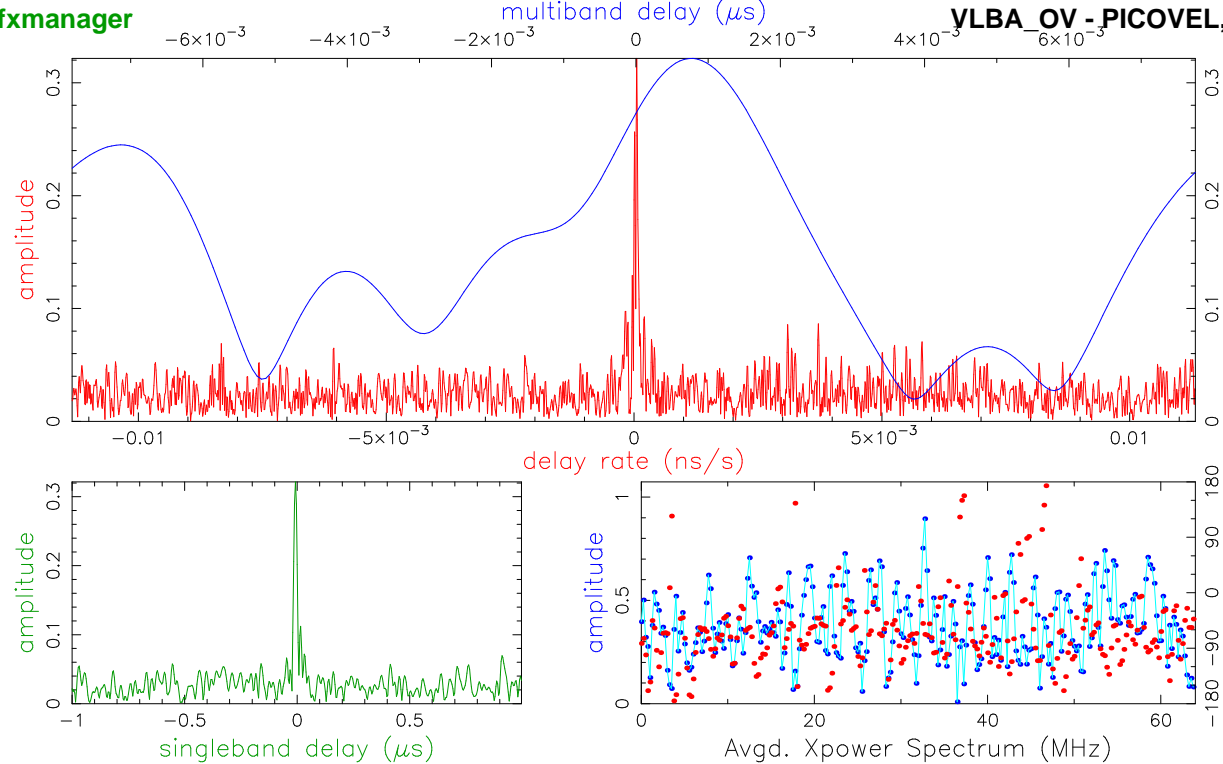
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/op..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/op.W.309.11VBZA

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, oP

VLBA_OV - PICOVEL, fgroup W, pol RL

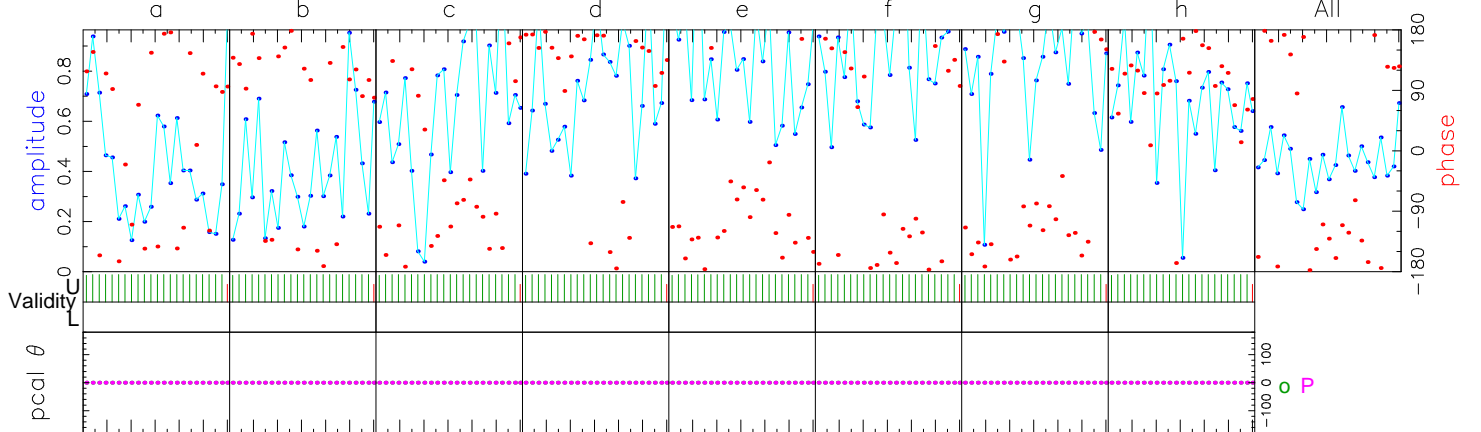


Fringe quality 7

SNR 16.7
 Int time 358.454
 Amp 0.322
 Phase -170.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.007779
 MBD 0.000768
 Fringe rate (Hz) 0.005095
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040715
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	9.50146366093E+03					9.50147851798E+03			7.67953E-04	+/- 6.5E-05
Sband delay (usec)	9.50147073848E+03					2.1631065E+01			-7.77950E-03	+/- 5.2E-04
Phase delay (usec)	9.50147851250E+03					2.9999999E-07			-5.48419E-06	+/- 2.2E-07
Delay rate (us/s)	1.40130154842E+00					1.40130148927E+00			5.91461E-08	+/- 1.1E-09
Total phase (deg)			23.9			-5.02485621044E-05			-170.1	+/- 6.9
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
PC period (AP's) 5, 5										
SampCntNorm: enabled										
simultaneous interpolator										

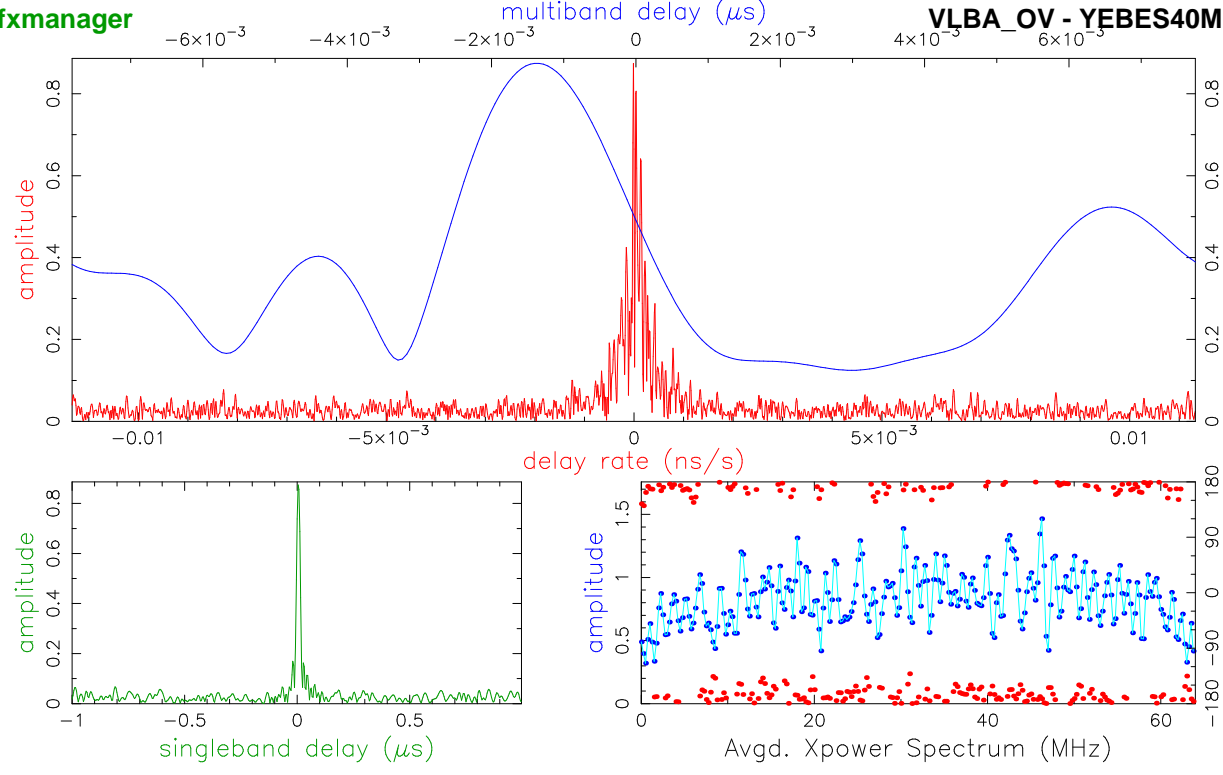
ph/seg (deg) 46.5 16.5 Search (2048X32) 0.309 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 48.8 28.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.2 9.7 Inc. seg. avg. 0.425 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 62.0 17.0 Inc. frq. avg. 0.457 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 69.9 el 64.9 pa -88.9 P: az 302.5 el 28.4 pa 64.7 u,v (fr/asec) -10811.920 -3385.256 ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oP..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oP.W.319.11VBZA

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

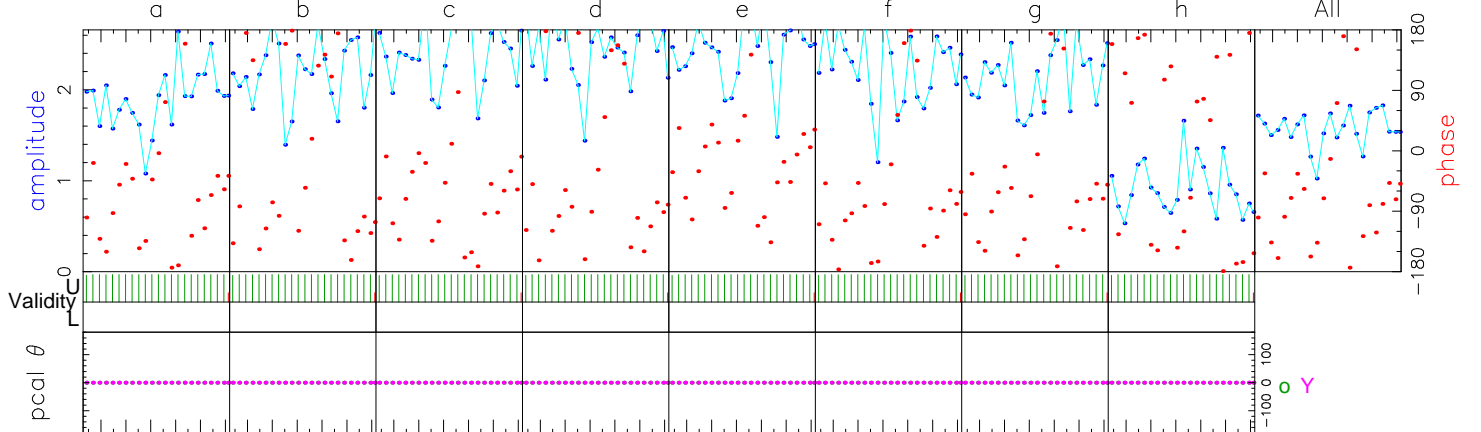
3C84.1VBZA, No0277, oY

VLBA_OV - YEBES40M, fgroup W, pol LL



Fringe quality 3
 SNR 44.9
 Int time 342.533
 Amp 0.886
 Phase -96.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.005416
 MBD -0.001338
 Fringe rate (Hz) -0.001252
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074516.90
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040703
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-86.8	-140.8	-67.0	-119.9	-23.5	-105.2	-94.5	166.7	Phase	-96.2
	1.0	1.2	1.3	1.4	1.3	1.3	1.2	0.5	Ampl.	1.1
	258.1	258.0	258.2	258.1	257.6	257.8	257.7	255.2	Sbd box	258.4
U/L	670/0	670/0	670/0	670/0	670/0	670/0	670/0	670/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	8.95846153701E+03		Apriori delay (usec)		8.95846287494E+03		Resid mbdelay (usec)		-1.33793E-03	+/- 2.4E-05
Sband delay (usec)	8.95846829144E+03		Apriori clock (usec)		7.6942787E+00		Resid sbdelay (usec)		5.41650E-03	+/- 1.9E-04
Phase delay (usec)	8.95846287184E+03		Apriori clockrate (us/s)		-2.1999999E-07		Resid phdelay (usec)		-3.10094E-06	+/- 8.2E-08
Delay rate (us/s)	1.35803037077E+00		Apriori rate (us/s)		1.35803038530E+00		Resid rate (us/s)		-1.45318E-08	+/- 4.2E-10
Total phase (deg)			Apriori accel (us/s/s)		-5.09443127620E-05		Resid phase (deg)		-96.2	+/- 2.6

ph/seg (deg) 63.5 6.1 Search (2048X32) 0.851 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 80.4 10.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.2 3.6 Inc. seg. avg. 1.564 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 42.1 6.3 Inc. frq. avg. 1.137 Data rate (Mbit/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 69.9 el 64.9 pa -88.9 Y: az 300.9 el 30.1 pa 60.3 u,v (fr/asec) -10481.193 -3747.435 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oY..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oY.W.248.11VBZA

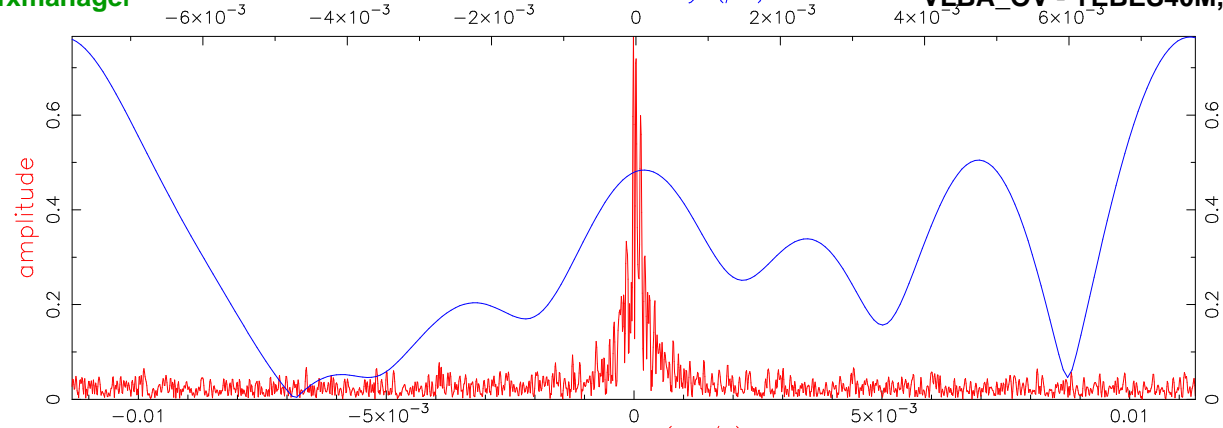
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, oY

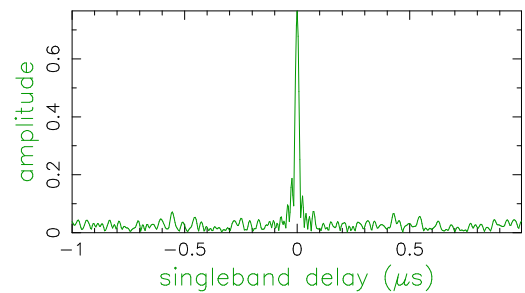
VLBA_OV - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

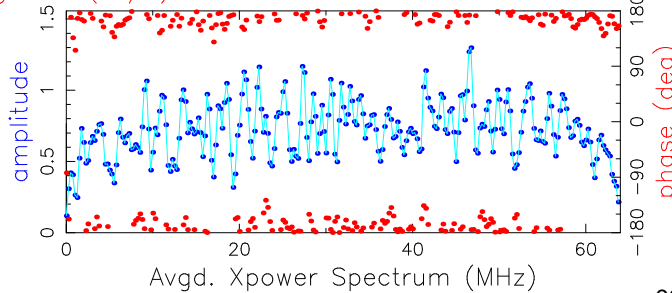


Fringe quality 4

SNR 38.8
 Int time 342.533
 Amp 0.766
 Phase -96.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.000540
 MBD -0.007953
 Fringe rate (Hz)
 -0.001230
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

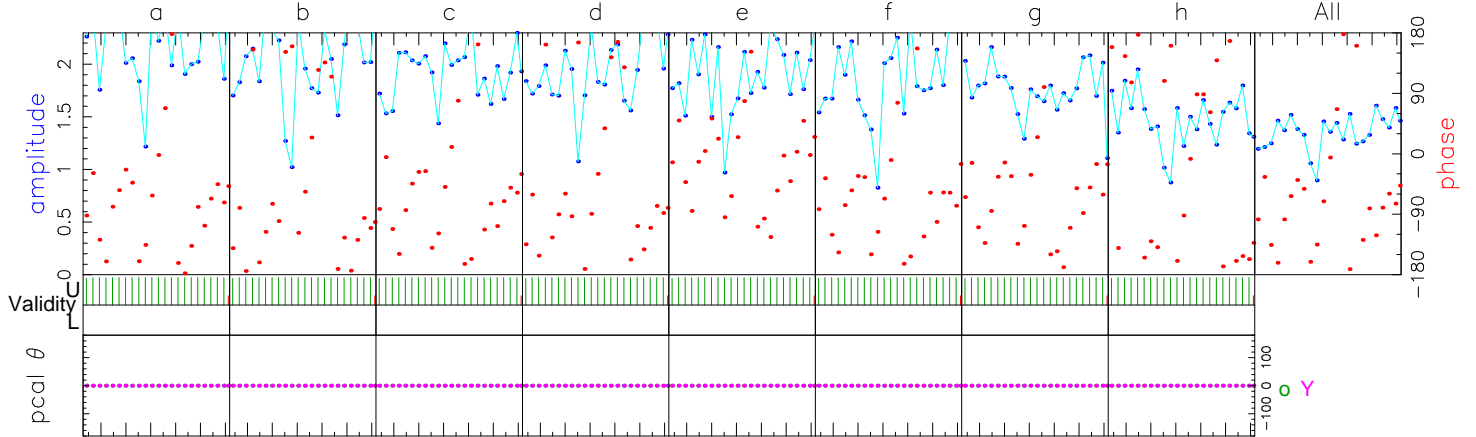


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074516.90
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040706
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

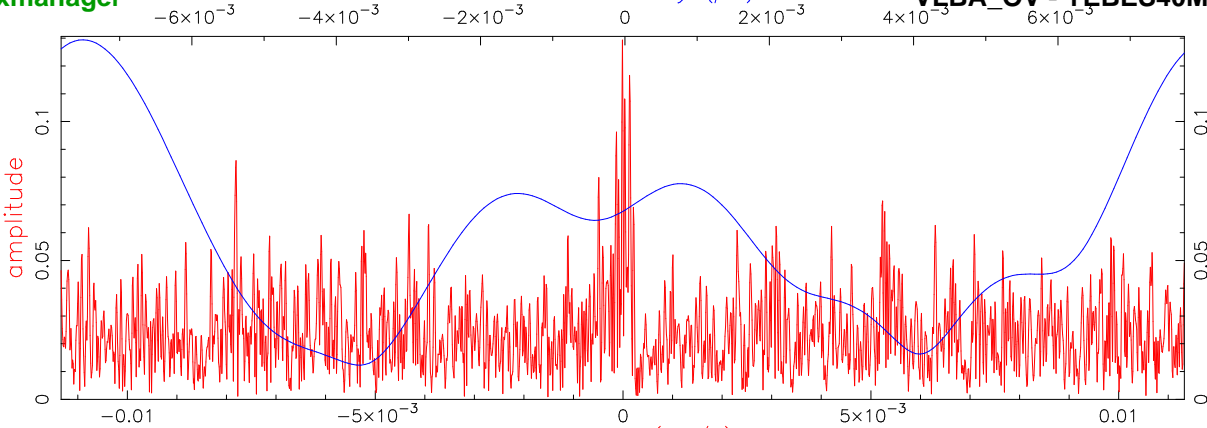
Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-86.5	-141.6	-82.3	-121.5	-16.3	-83.0	-71.0	174.3	Phase	-96.4
	1.2	1.1	1.0	1.1	1.0	1.1	1.0	0.9	Ampl.	1.0
	256.6	256.3	256.6	256.2	256.1	256.1	255.7	254.5	Sbd box	256.9
U/L	670/0	670/0	670/0	670/0	670/0	670/0	670/0	670/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	8.95845492172E+03		Apriori delay (usec)		8.95846287494E+03		Resid mbdelay (usec)		-7.95322E-03	+/- 2.8E-05
Sband delay (usec)	8.95846233469E+03		Apriori clock (usec)		7.6942787E+00		Resid sbdelay (usec)		-5.40250E-04	+/- 2.2E-04
Phase delay (usec)	8.95846287183E+03		Apriori clockrate (us/s)		-2.1999999E-07		Resid phdelay (usec)		-3.10967E-06	+/- 9.5E-08
Delay rate (us/s)	1.35803037102E+00		Apriori rate (us/s)		1.35803038530E+00		Resid rate (us/s)		-1.42831E-08	+/- 4.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-5.09443127620E-05		Resid phase (deg)		-96.4	+/- 3.0

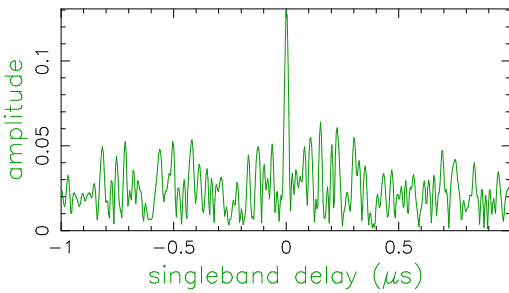
ph/seg (deg) 61.9 7.1 Search (2048X32) 0.744 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.2 12.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.0 4.2 Inc. seg. avg. 1.340 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.8 7.3 Inc. frq. avg. 1.045 Data rate(Mb/s): 2048 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 o: az 69.9 el 64.9 pa -88.9 Y: az 300.9 el 30.1 pa 60.3 u,v (fr/asec) -10481.193 -3747.435 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oY..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oY.W.267.11VBZA

multiband delay (μ s)

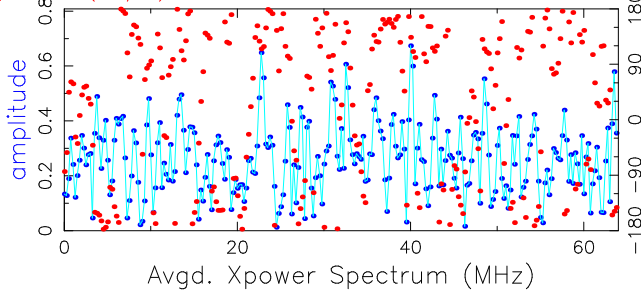


Fringe quality 0

SNR 6.6
 Int time 342.533
 Amp 0.131
 Phase -111.2
 PFD 1.1e-02
 Delays (us)
 SBD 0.001429
 MBD -0.007467
 Fringe rate (Hz)
 -0.001082
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

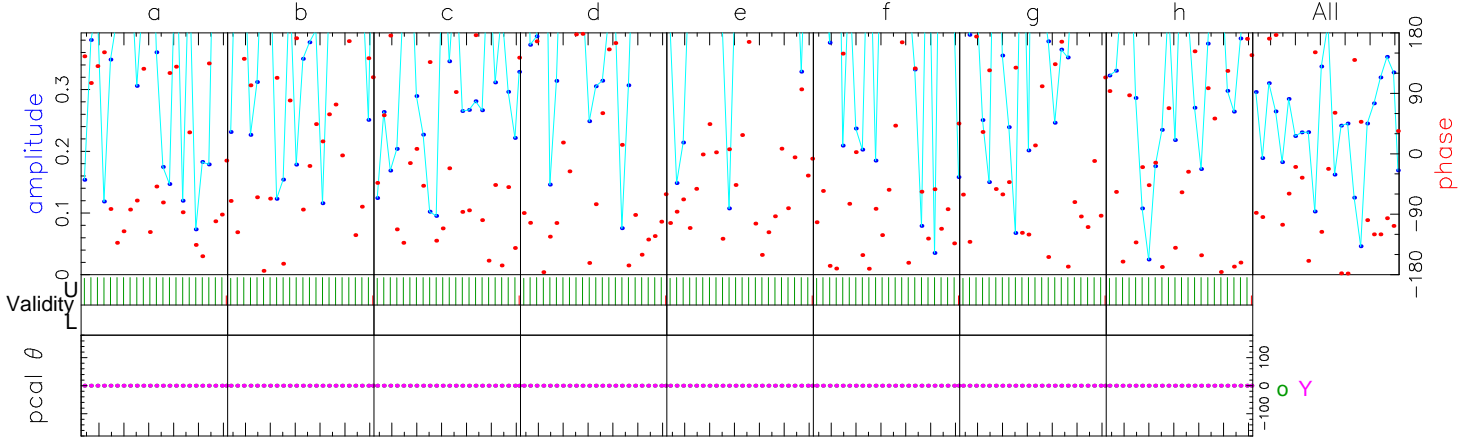


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074516.90
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040709
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-117.3	-155.0	-99.2	-129.9	-49.4	-132.2	-86.2	155.7	Phase	-111.2
	0.1	0.0	0.1	0.3	0.2	0.3	0.2	0.1	Ampl.	0.2
	269.7	1.5	313.0	256.4	256.2	255.7	255.1	254.5	Sbd box	257.4
U/L	670/0	670/0	670/0	670/0	670/0	670/0	670/0	670/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	8.95847103342E+03	Apriori delay (usec)	8.95846287494E+03	Resid mbdelay (usec)	-7.46652E-03	+/-	1.6E-04
Sband delay (usec)	8.95846430394E+03	Apriori clock (usec)	7.6942787E+00	Resid sbdelay (usec)	1.42900E-03	+/-	1.3E-03
Phase delay (usec)	8.95846287135E+03	Apriori clockrate (us/s)	-2.1999999E-07	Resid phdelay (usec)	-3.58726E-06	+/-	5.6E-07
Delay rate (us/s)	1.35803037274E+00	Apriori rate (us/s)	1.35803038530E+00	Resid rate (us/s)	-1.25571E-08	+/-	2.8E-09
Total phase (deg)	-94.2	Apriori accel (us/s/s)	-5.09443127620E-05	Resid phase (deg)	-111.2	+/-	17.3

ph/seg (deg)	RMS 76.9	Theor. 41.6	Amplitude Search (2048X32)	0.131 +/- 0.020	0.128	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	108.6	72.5	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	51.6	24.5	Inc. seg. avg.	0.194	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	70.5	42.8	Inc. frq. avg.	0.151	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00	

o: az 69.9 el 64.9 pa -88.9 Y: az 300.9 el 30.1 pa 60.3 u,v (fr/asec) -10481.193 -3747.435 simultaneous interpolator

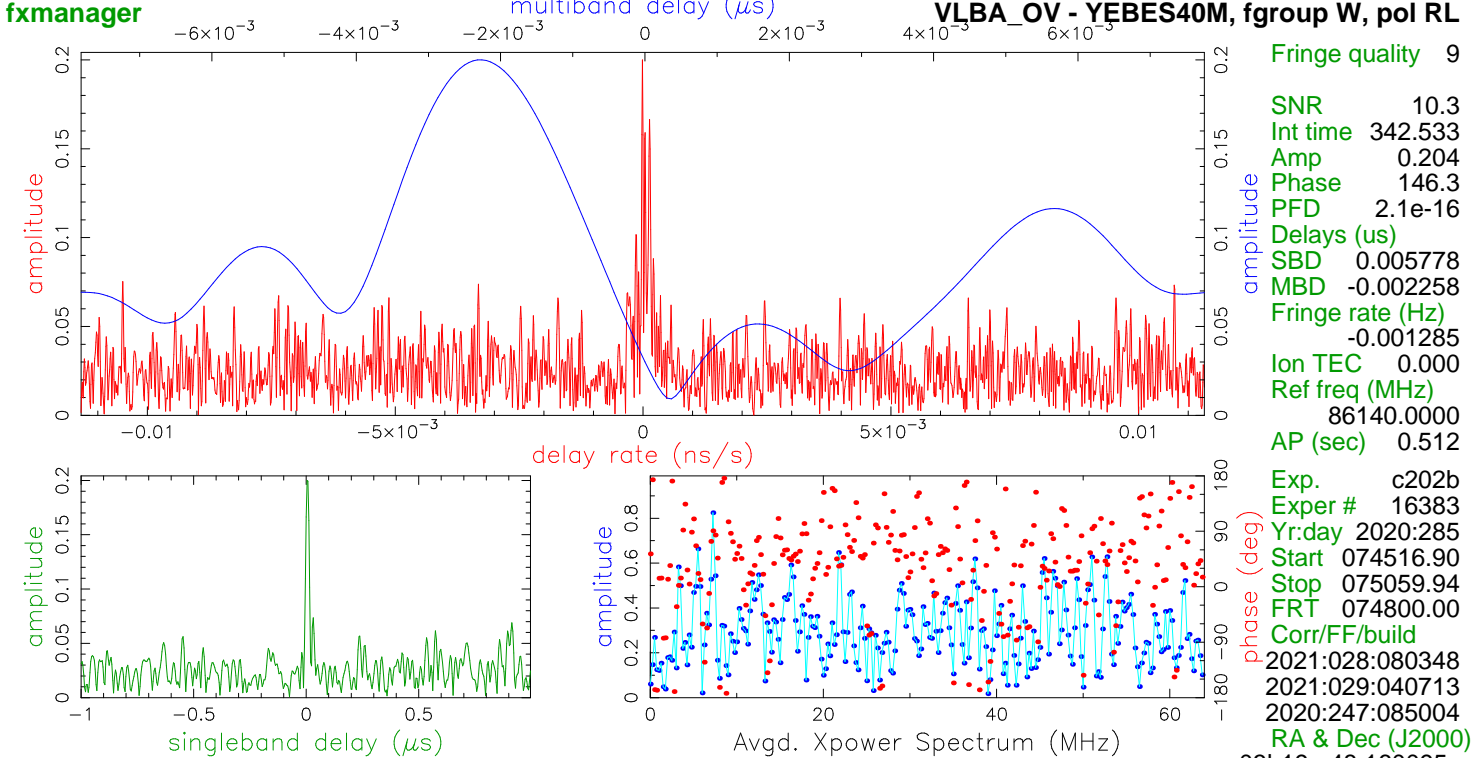
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oY..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oY.W.287.11VBZA

Mk4/DiFX fourfit 3.21 rev 2937

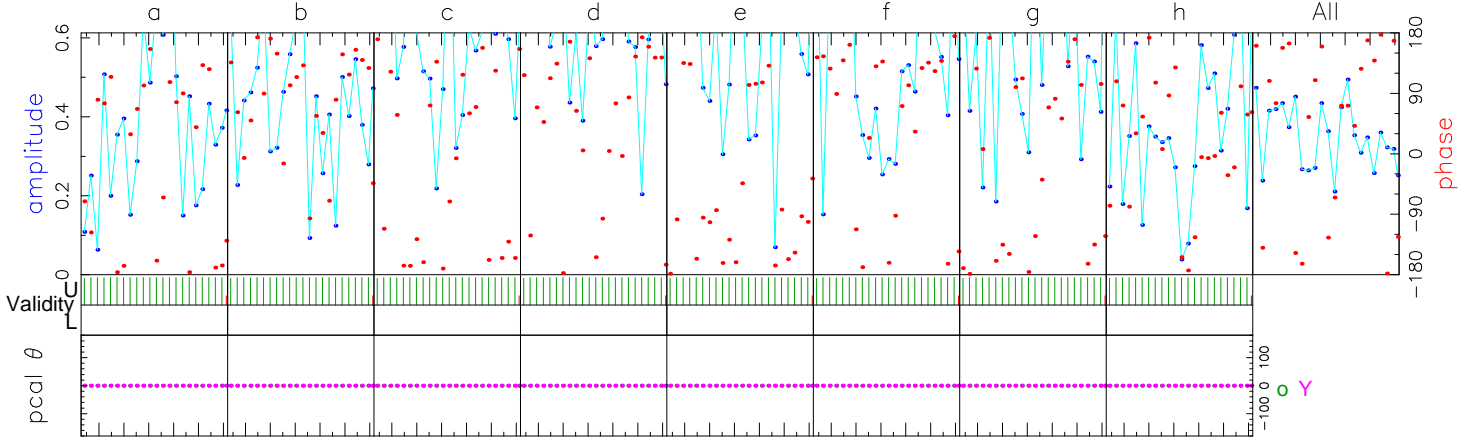
fxmanager

3C84.1VBZA, No0277, oY

VLBA_OV - YESES40M, fgroup W, pol RL



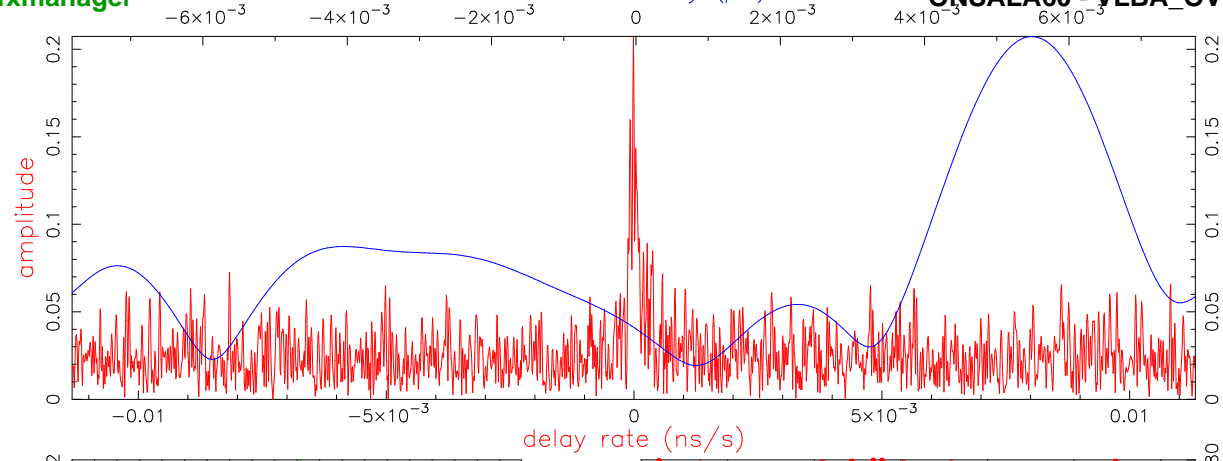
Amp. and Phase vs. time for each freq., 23 segs, 30 APs / seg (15.36 sec / seg.), time ticks 30 sec



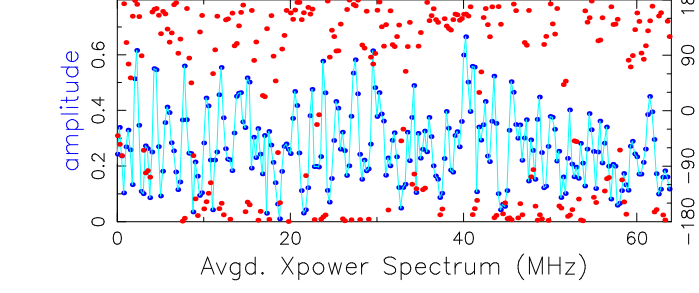
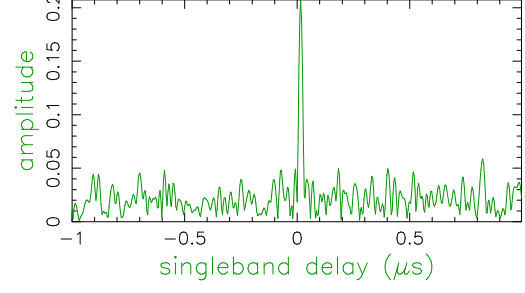
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
140.0	111.9	178.4	115.8	-151.2	139.3	160.7	160.7	38.9	Phase	146.3
0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.2	Ampl.	0.3
17.7	258.6	258.5	257.4	258.0	257.8	257.0	257.0	398.5	Sbd box	258.5
U/L	670/0	670/0	670/0	670/0	670/0	670/0	670/0	670/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	Chan ids	
Y	1000	1000	1000	1000	1000	1000	1000	1000	Tracks	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	8.95847624214E+03		Apriori delay (usec)	8.95846287494E+03	Resid mbdelay (usec)	-2.25780E-03	+/-	1.1E-04		
Sband delay (usec)	8.95846865344E+03		Apriori clock (usec)	7.6942787E+00	Resid sbdelay (usec)	5.77850E-03	+/-	8.3E-04		
Phase delay (usec)	8.95846287966E+03		Apriori clockrate (us/s)	-2.1999999E-07	Resid phdelay (usec)	4.71799E-06	+/-	3.6E-07		
Delay rate (us/s)	1.35803037038E+00		Apriori rate (us/s)	1.35803038530E+00	Resid rate (us/s)	-1.49151E-08	+/-	1.8E-09		
Total phase (deg)		163.4	Apriori accel (us/s/s)	-5.09443127620E-05	Resid phase (deg)	146.3	+/-	11.1		

	RMS	Theor.	Amplitude	0.204 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	62.7	26.6	Search (2048X32)	0.192	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	82.7	46.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	56.1	15.7	Inc. seg. avg.	0.319	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	44.9	27.4	Inc. frq. avg.	0.252	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			
o: az 69.9 el 64.9 pa -88.9			Y: az 300.9 el 30.1 pa 60.3		u, v (fr/asec) -10481.193 -3747.435				simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/oY..11VBZA		Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/oY.W.307.11VBZA				

multiband delay (μ s)

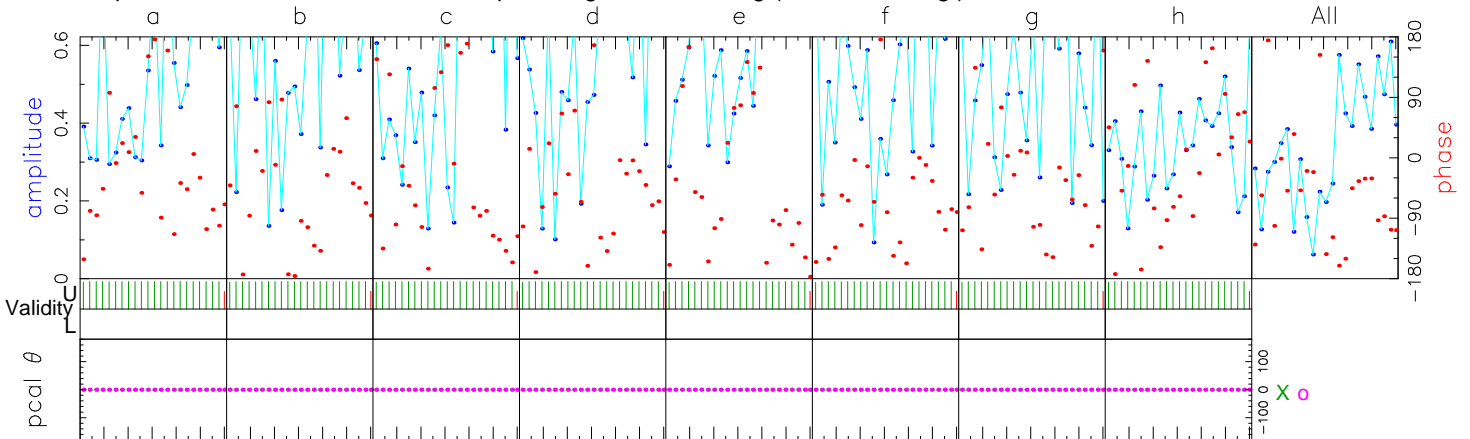


Fringe quality 9
 SNR 10.7
 Int time 358.826
 Amp 0.207
 Phase -84.0
 PFD 3.0e-18
 Delays (us)
 SBD 0.015378
 MBD 0.005478
 Fringe rate (Hz)
 -0.000592
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040704
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-71.4	-51.4	-131.7	-57.8	-129.6	-78.0	-67.6	-7.3	Phase	-84.0
	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.0	Ampl.	0.2
	261.6	261.8	261.7	261.3	260.3	261.1	260.7	109.9	Sbd box	260.9
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.82206472502E+03	Apriori delay (usec)	-8.82208582801E+03	Resid mbdelay (usec)	5.47798E-03	+/-	1.0E-04
Sband delay (usec)	-8.82207045051E+03	Apriori clock (usec)	2.6989506E+01	Resid sbdelay (usec)	1.53775E-02	+/-	8.0E-04
Phase delay (usec)	-8.82208583071E+03	Apriori clockrate (us/s)	6.2800004E-07	Resid phdelay (usec)	-2.70882E-06	+/-	3.4E-07
Delay rate (us/s)	-1.09851922773E+00	Apriori rate (us/s)	-1.09851922086E+00	Resid rate (us/s)	-6.86805E-09	+/-	1.7E-09
Total phase (deg)	-164.8	Apriori accel (us/s/s)	6.48457568481E-05	Resid phase (deg)	-84.0	+/-	10.7

ph/seg (deg)	61.5	Theor.	25.6	Amplitude	0.207 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	98.5		44.7	Search (2048X32)	0.201	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	45.6		15.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	45.6		26.3	Inc. seg. avg.	0.311	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.237	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

X: az 301.0 el 30.2 pa 38.0 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 8515.310 6013.107 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Xo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Xo.W.258.11VBZA

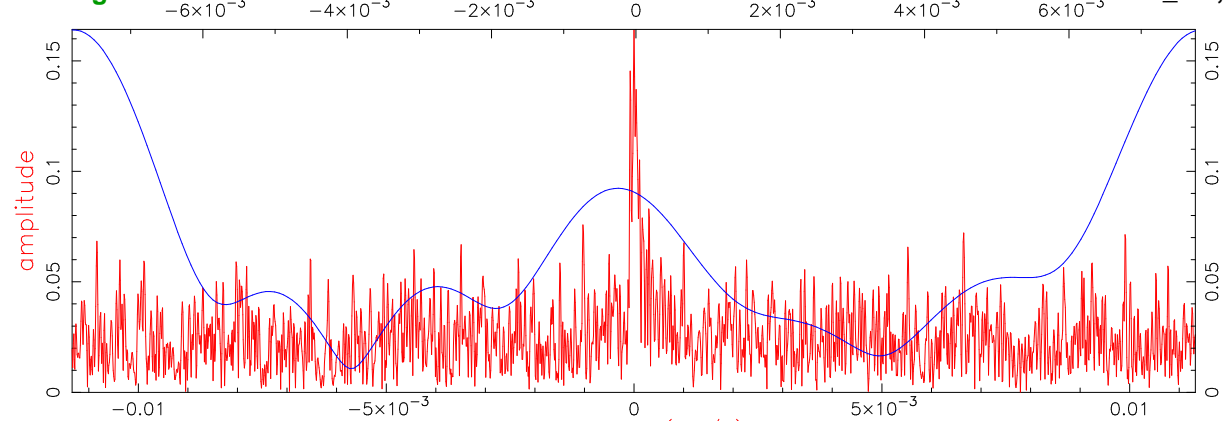
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, Xo

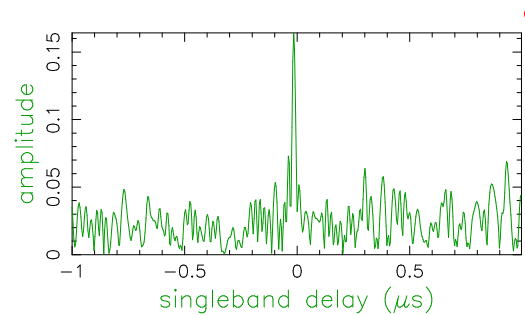
ONSALA60 - VLBA_OV, fgroup W, pol RR

multiband delay (μ s)

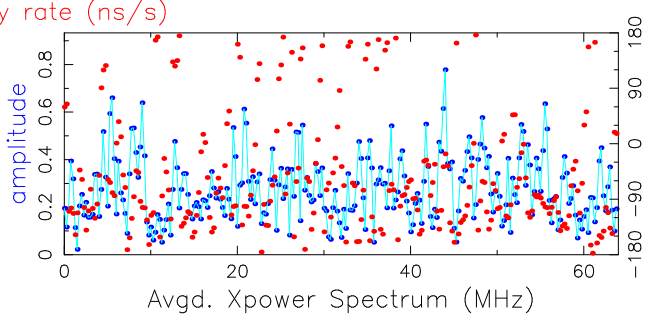


Fringe quality 9

SNR 8.5
 Int time 358.826
 Amp 0.164
 Phase 175.4
 PFD 6.5e-09
 Delays (us)
 SBD -0.015135
 MBD -0.007776
 Fringe rate (Hz)
 0.000193
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

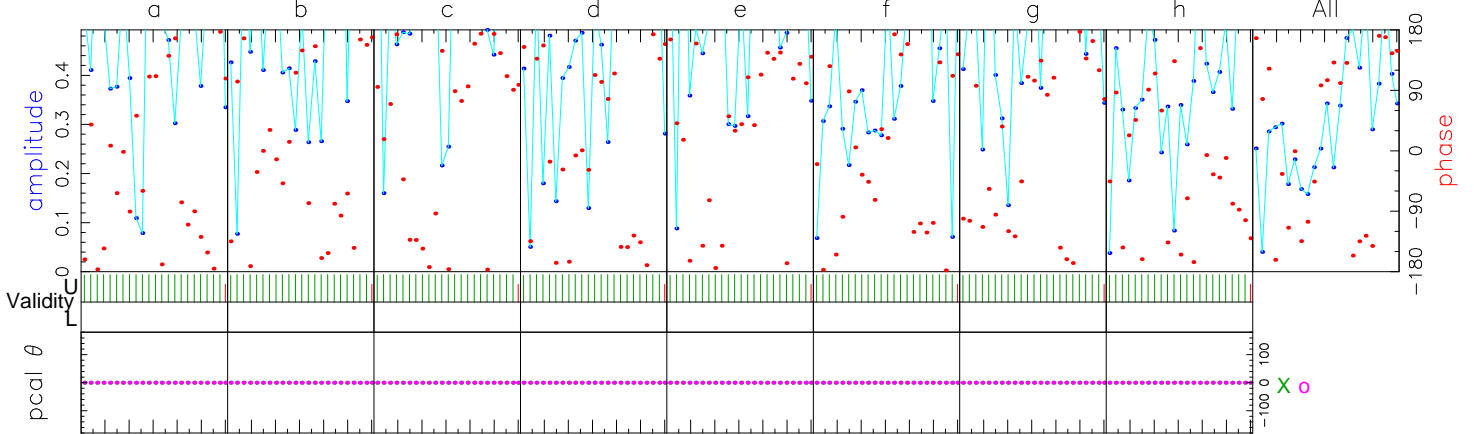


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040708
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-168.3	-134.0	142.1	178.5	130.1	-146.4	171.2	-116.4	Phase	175.4
	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.1	Ampl.	0.2
	254.3	51.1	252.8	253.7	253.9	373.7	254.0	256.6	Sbd box	253.1
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-8.82209360354E+03	Apriori delay (usec)	-8.82208582801E+03	Resid mbdelay (usec)	-7.77553E-03	+/-	1.3E-04
Sband delay (usec)	-8.82210096276E+03	Apriori clock (usec)	2.6989506E+01	Resid sbdelay (usec)	-1.51347E-02	+/-	1.0E-03
Phase delay (usec)	-8.82208582235E+03	Apriori clockrate (us/s)	6.2800004E-07	Resid phdelay (usec)	5.65683E-06	+/-	4.3E-07
Delay rate (us/s)	-1.09851921862E+00	Apriori rate (us/s)	-1.09851922086E+00	Resid rate (us/s)	2.24046E-09	+/-	2.1E-09
Total phase (deg)		Apriori accel (us/s/s)	6.48457568481E-05	Resid phase (deg)	175.4	+/-	13.5

ph/seg (deg)	RMS 75.8	Theor. 32.3	Amplitude Search (2048X32)	0.163	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	122.4	56.4	Interp.	0.000	PCal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	45.0	19.1	Inc. seg. avg.	0.271	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	43.9	33.2	Inc. frq. avg.	0.188	Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

X: az 301.0 el 30.2 pa 38.0 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 8515.310 6013.107 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Xo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Xo.W.277.11VBZA

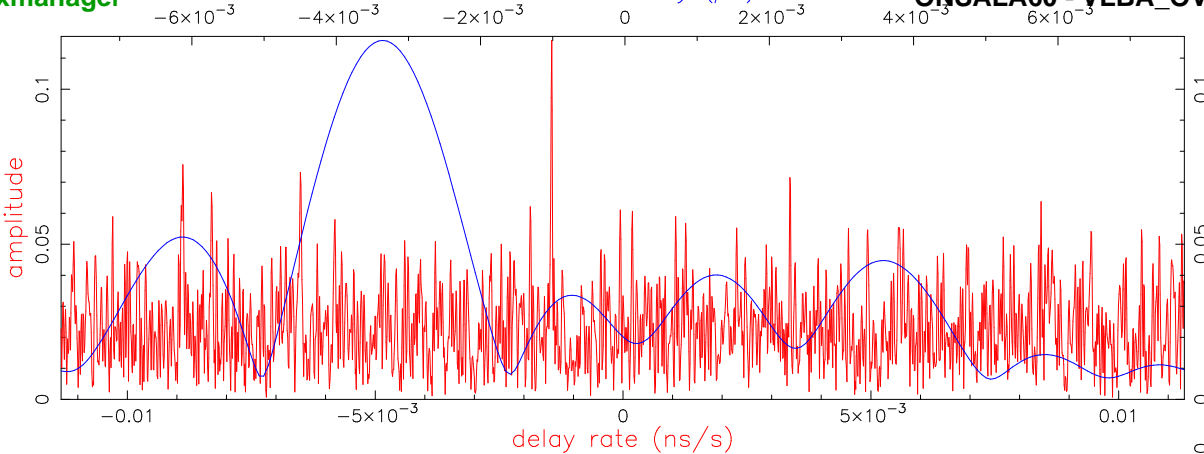
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C84.1VBZA, No0277, Xo

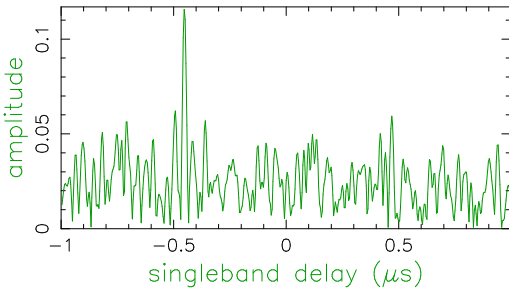
ONSALA60 - VLBA_OV, fgroup W, pol LR

multiband delay (μ s)

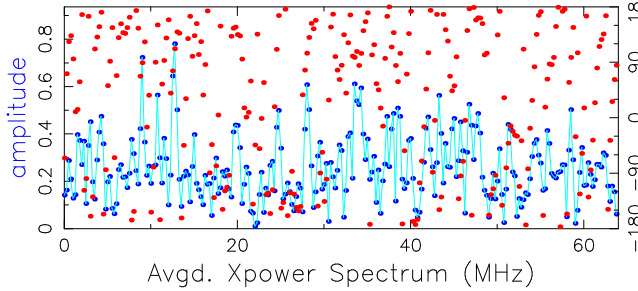


Fringe quality 0

SNR 6.0
Int time 358.826
Amp 0.117
Phase 5.0
PFD 3.6e-01
Delays (us)
SBD -0.452224
MBD -0.003336
Fringe rate (Hz)
-0.123890
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

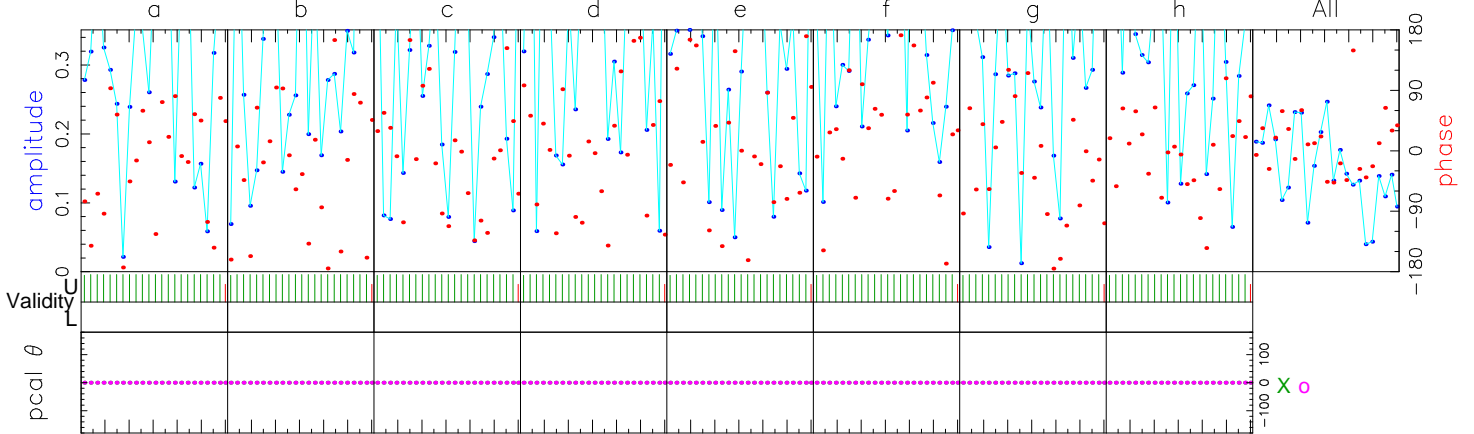


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074500.51
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040711
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd) -8.82254228868E+03 Apriori delay (usec) -8.82208582801E+03 Resid mbdelay (usec) -3.33568E-03 +/- 1.8E-04
 Sband delay (usec) -8.82253805176E+03 Apriori clock (usec) 2.6989506E+01 Resid sbdelay (usec) -4.52224E-01 +/- 1.4E-03
 Phase delay (usec) -8.82208582784E+03 Apriori clockrate (us/s) 6.2800004E-07 Resid phdelay (usec) 1.60220E-07 +/- 6.1E-07
 Delay rate (us/s) -1.09852065910E+00 Apriori rate (us/s) -1.09851922086E+00 Resid rate (us/s) -1.43824E-06 +/- 3.0E-09
 Total phase (deg) -75.8 Apriori accel (us/s/s) 6.48457568481E-05 Resid phase (deg) 5.0 +/- 19.0

RMS Theor. Amplitude 0.117 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 45.7 45.6 Search (2048X32) 0.113 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 58.3 79.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 22.6 26.9 Inc. seg. avg. 0.115 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 30.6 47.0 Inc. frq. avg. 0.111 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

X: az 301.0 el 30.2 pa 38.0 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 8515.310 6013.107 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Xo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Xo.W.298.11VBZA

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

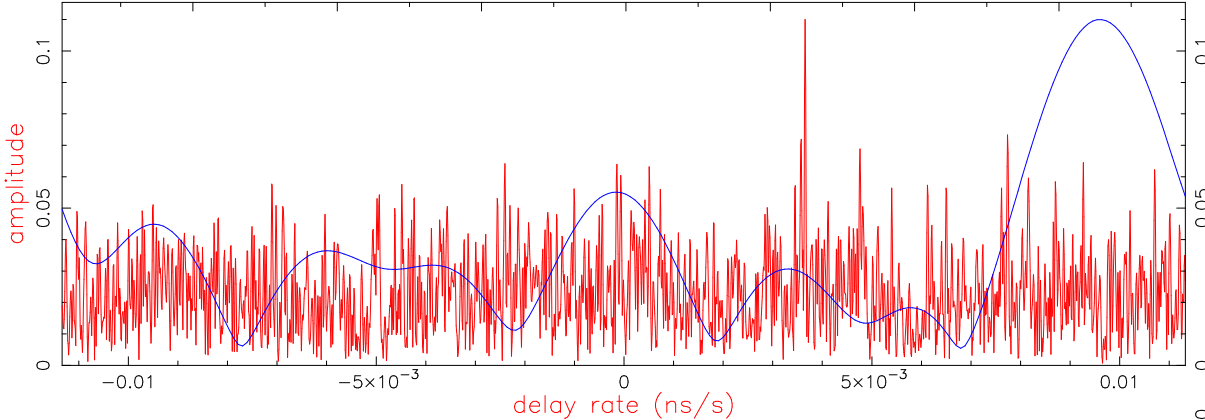
3C84.1VBZA, No0277, Xo

ONSALA60 - VLBA_OV, fgroup W, pol RL

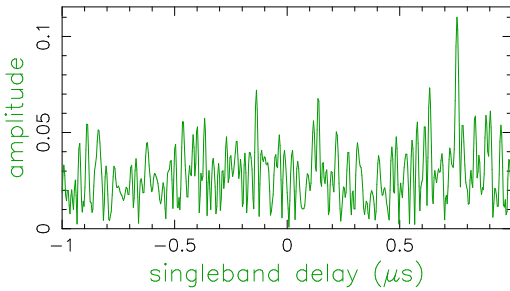
multiband delay (μ s)

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

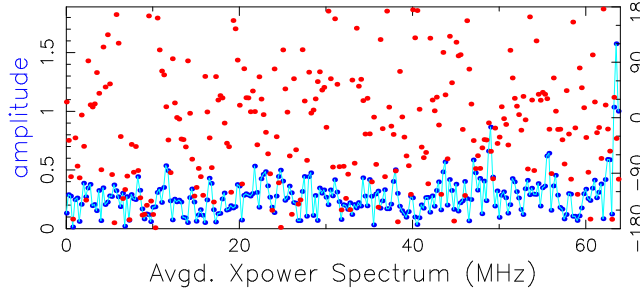
Fringe quality 0



SNR 5.7
Int time 358.826
Amp 0.115
Phase -31.2
PFD 9.2e-01
Delays (us)
SBD 0.754779
MBD 0.006572
Fringe rate (Hz)
0.315625
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

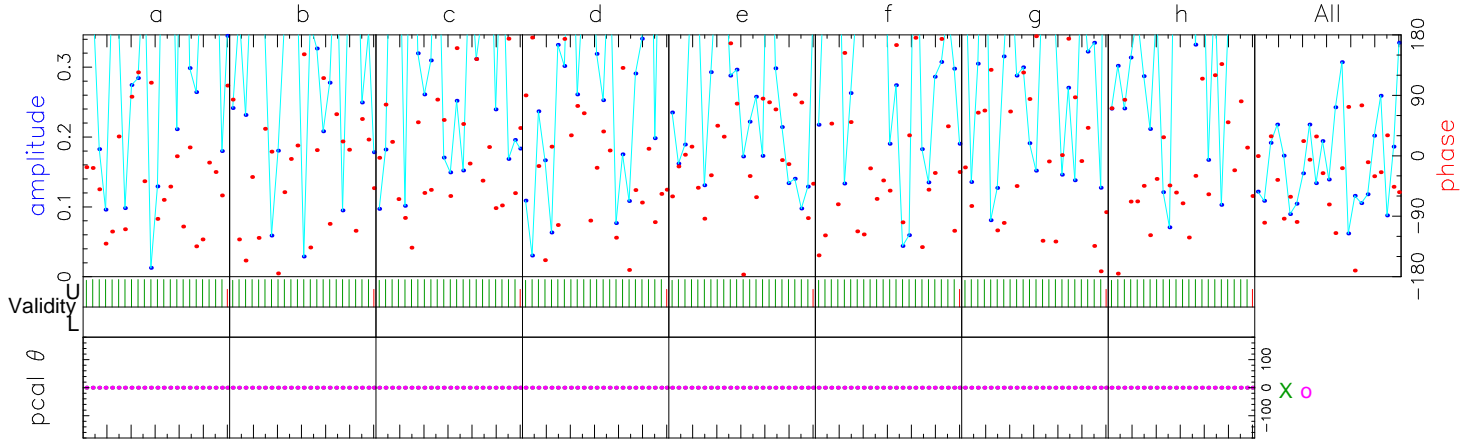


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:285
Start 074500.51
Stop 075059.94
FRT 074800.00
Corr/FF/build
2021:028:080348
2021:029:040715
2020:247:085004
RA & Dec (J2000)
03h19m48.160095s
+41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-49.1	-22.9	-19.5	-21.1	16.3	-79.2	-12.5	-42.0	Phase	-31.2
	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	451.0	424.9	176.4	42.1	199.5	382.7	303.7	29.6	Sbd box	450.2
U/L	702/0	702/0	702/0	702/0	702/0	702/0	702/0	702/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

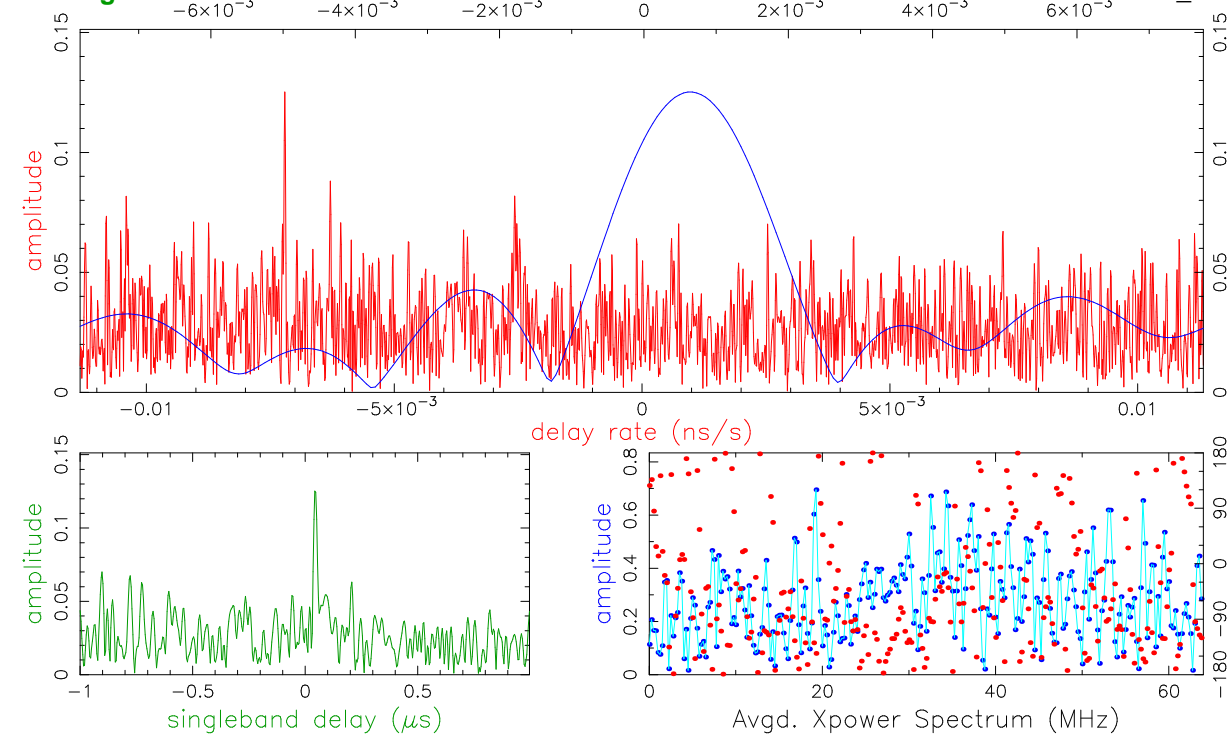
Group delay (usec)(sbd)	-8.82132925626E+03	Apriori delay (usec)	-8.82208582801E+03	Resid mbdelay (usec)	6.57175E-03	+/-	1.9E-04
Sband delay (usec)	-8.82133104926E+03	Apriori clock (usec)	2.6989506E+01	Resid sbdelay (usec)	7.54779E-01	+/-	1.5E-03
Phase delay (usec)	-8.82208582901E+03	Apriori clockrate (us/s)	6.2800004E-07	Resid phdelay (usec)	-1.00499E-06	+/-	6.5E-07
Delay rate (us/s)	-1.09851555676E+00	Apriori rate (us/s)	-1.09851922086E+00	Resid rate (us/s)	3.66410E-06	+/-	3.1E-09
Total phase (deg)	-111.9	Apriori accel (us/s/s)	6.48457568481E-05	Resid phase (deg)	-31.2	+/-	20.0

ph/seg (deg)	59.8	Theor.	48.0	Amplitude	0.115 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.8		83.7	Search (2048X32)	0.110	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	30.7		28.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	35.0		49.4	Inc. seg. avg.	0.128	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.115	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

X: az 301.0 el 30.2 pa 38.0 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 8515.310 6013.107 simultaneous interpolator

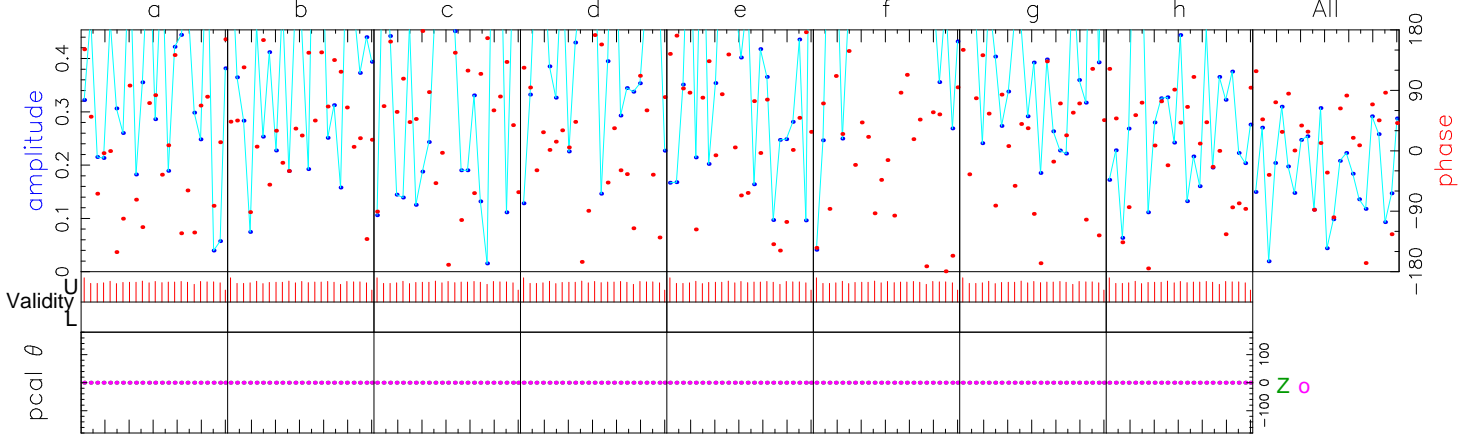
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Xo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Xo.W.316.11VBZA

multiband delay (μs)



Fringe quality 0
 SNR 5.6
 Int time 258.904
 Amp 0.151
 Phase 44.2
 PFD 9.9e-01
 Delays (us)
 SBD 0.044742
 MBD 0.000643
 Fringe rate (Hz) -0.621611
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040717
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	699/0	699/0	699/0	699/0	699/0	699/0	699/0	699/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-1.00654086781E+04	Apriori delay (usec)	-1.00654561963E+04	Resid mbdelay (usec)	6.43195E-04	+/-	1.9E-04
Sband delay (usec)	-1.00654114545E+04	Apriori clock (usec)	-2.1246243E+01	Resid sbdelay (usec)	4.47417E-02	+/-	1.5E-03
Phase delay (usec)	-1.00654561949E+04	Apriori clockrate (us/s)	1.1600001E-07	Resid phdelay (usec)	1.42438E-06	+/-	6.6E-07
Delay rate (us/s)	-1.01725885897E+00	Apriori rate (us/s)	-1.01725164268E+00	Resid rate (us/s)	-7.21629E-06	+/-	3.2E-09
Total phase (deg)	-225.2	Apriori accel (us/s/s)	7.31175760915E-05	Resid phase (deg)	44.2	+/-	20.5

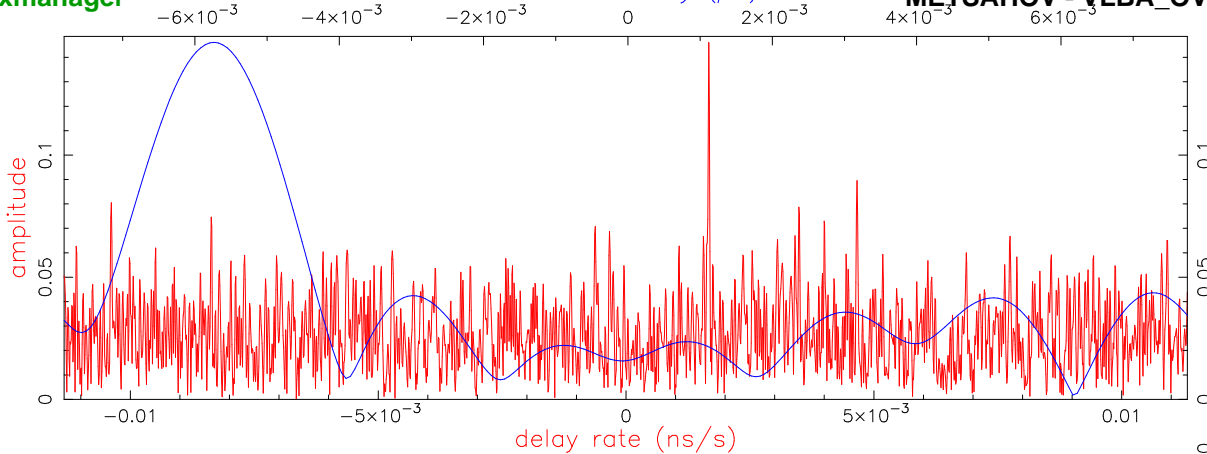
ph/seg (deg)	71.7	Theor.	49.0	Amplitude	0.151 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.7		85.4	Search (2048X32)	0.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	18.7		28.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	33.7		50.5	Inc. seg. avg.	0.162	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.137	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

Z: az 308.5 el 26.5 pa 31.7 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 7906.759 6765.058 simultaneous interpolator

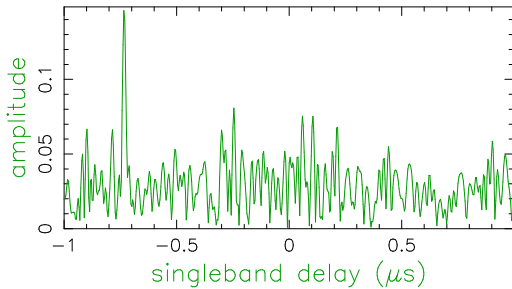
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Zo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Zo.W.326.11VBZA

multiband delay (μ s)

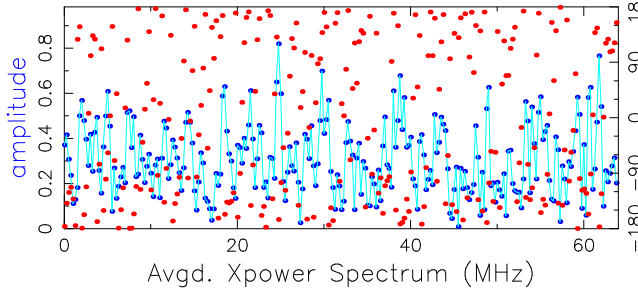
Fringe quality 0



SNR 6.5
 Int time 258.904
 Amp 0.149
 Phase 89.1
 PFD 2.5e-02
 Delays (us)
 SBD -0.733278
 MBD -0.005705
 Fringe rate (Hz)
 0.143894
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

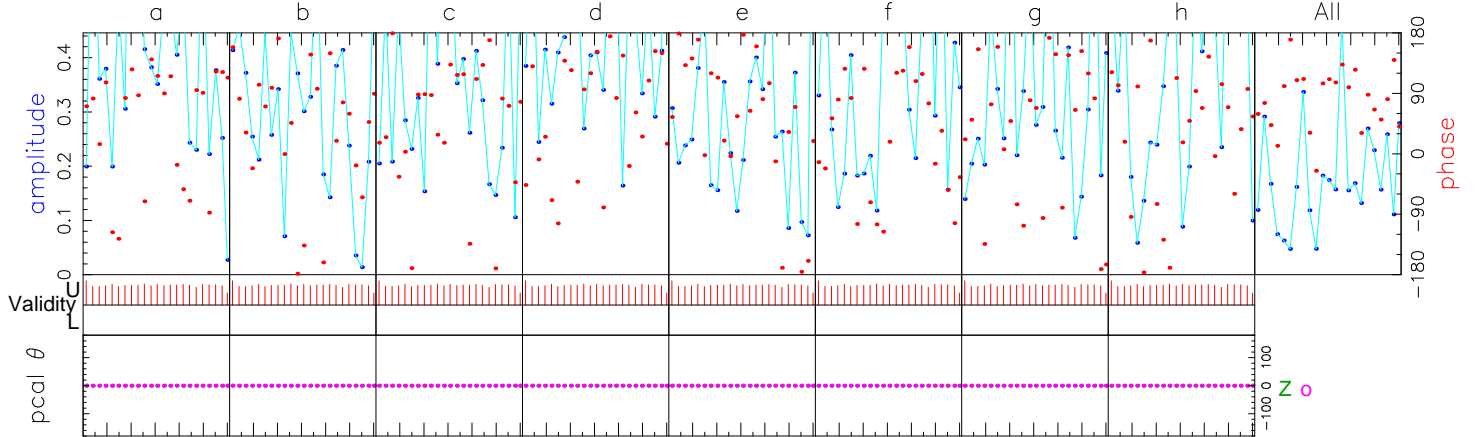


delay rate (ns/s)



Exp. c202b
 Yr:day 16383
 Start 2021:028:285
 Stop 2021:029:04721
 FRT 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

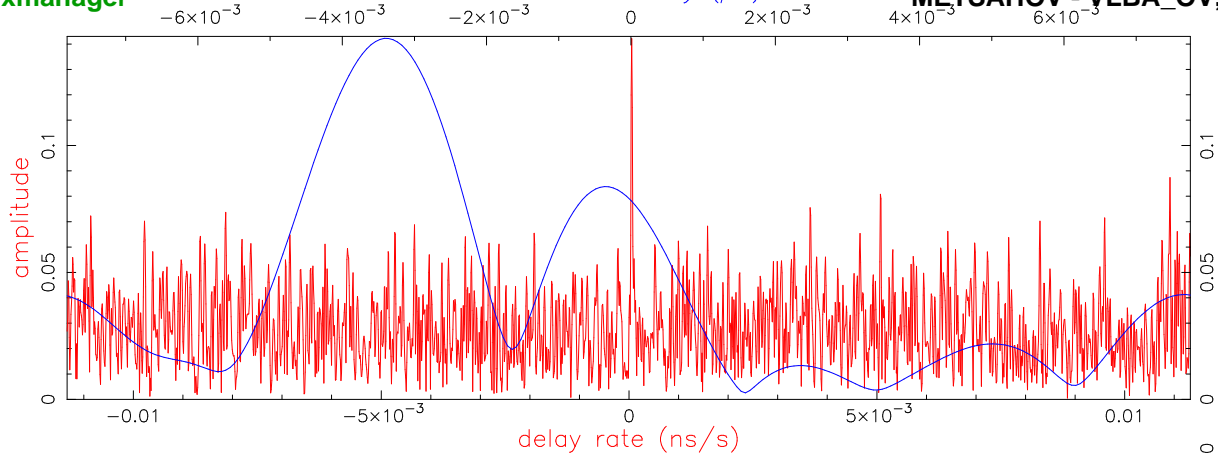
Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	699/0	699/0	699/0	699/0	699/0	699/0	699/0	699/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-1.00661962762E+04				-1.00654561963E+04					
Sband delay (usec)	-1.00661894743E+04				-2.1246243E+01					
Phase delay (usec)	-1.00654561934E+04				1.1600001E-07					
Delay rate (us/s)	-1.01724997221E+00				-1.01725164268E+00					
Total phase (deg)		-180.3			7.31175760915E-05					
			Apriori delay (usec)			Resid mbdelay (usec)			-5.70493E-03	+/- 1.7E-04
			Apriori clock (usec)			Resid sbdelay (usec)			-7.33278E-01	+/- 1.3E-03
			Apriori clockrate (us/s)			Resid phdelay (usec)			2.87328E-06	+/- 5.7E-07
			Apriori rate (us/s)			Resid rate (us/s)			1.67047E-06	+/- 2.8E-09
			Apriori accel (us/s/s)			Resid phase (deg)			89.1	+/- 17.7

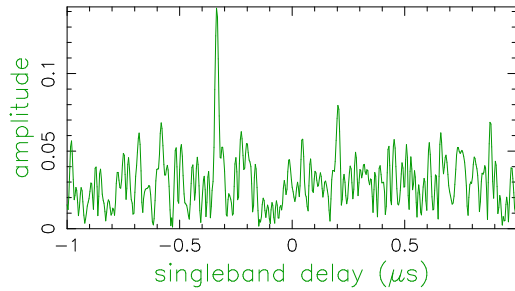
ph/seg (deg) 45.6 42.3 Search (2048X32) 0.143 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.1 73.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 19.1 25.0 Inc. seg. avg. 0.142 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 18.8 43.7 Inc. frq. avg. 0.139 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 308.5 el 26.5 pa 31.7 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 7906.759 6765.058 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Zo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Zo.W.338.11VBZA

multiband delay (μ s)

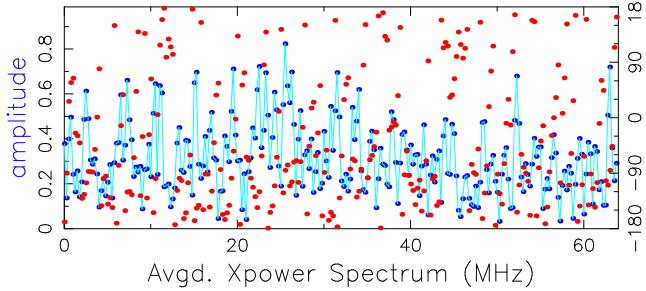


Fringe quality 0

SNR 6.3
 Int time 258.904
 Amp 0.143
 Phase 21.4
 PFD 8.1e-02
 Delays (us)
 SBD -0.334918
 MBD -0.003349
 Fringe rate (Hz)
 0.004419
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

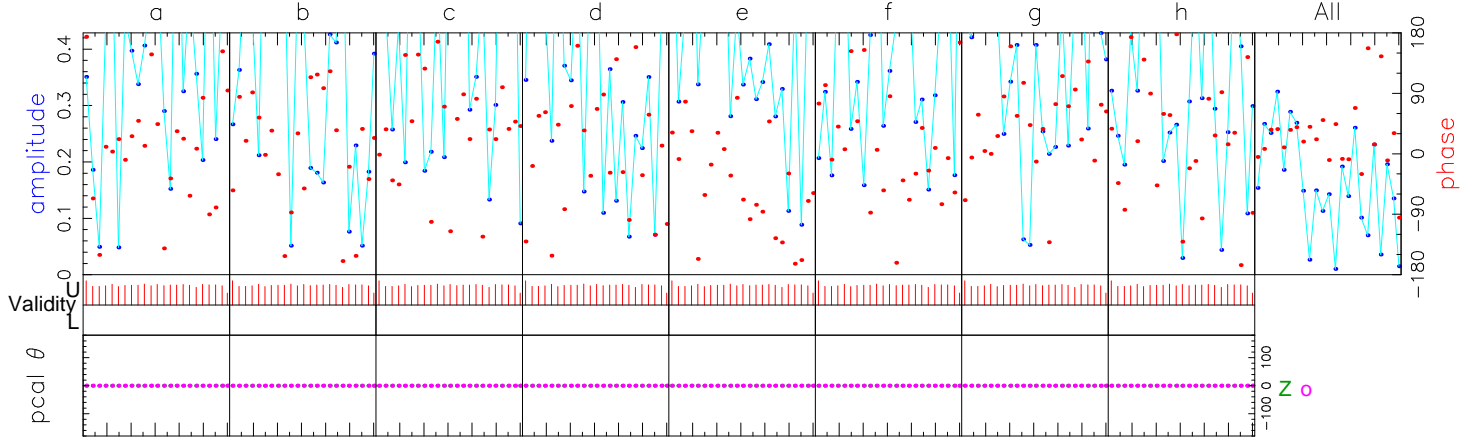


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
 Stop 075059.94
 FRT 074800.00
 Corr/FF/build
 2021:028:080348
 2021:029:040724
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	11.5	30.2	62.2	18.5	-20.0	-7.9	37.2	35.6	Phase	21.4
	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	Ampl.	0.1
	128.3	368.4	211.8	425.5	322.7	85.7	172.5	365.4	Sbd box	171.3
U/L	699/0	699/0	699/0	699/0	699/0	699/0	699/0	699/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.00657876706E+04			Apriori delay (usec)	-1.00654561963E+04			Resid mbdelay (usec)	-3.34933E-03	+/- 1.7E-04
Sband delay (usec)	-1.00657911145E+04			Apriori clock (usec)	-2.1246243E+01			Resid sbdelay (usec)	-3.34918E-01	+/- 1.4E-03
Phase delay (usec)	-1.00654561956E+04			Apriori clockrate (us/s)	1.1600001E-07			Resid phdelay (usec)	6.88543E-07	+/- 5.9E-07
Delay rate (us/s)	-1.01725159138E+00			Apriori rate (us/s)	-1.01725164268E+00			Resid rate (us/s)	5.12967E-08	+/- 2.8E-09
Total phase (deg)		-248.0		Apriori accel (us/s/s)	7.31175760915E-05			Resid phase (deg)	21.4	+/- 18.2

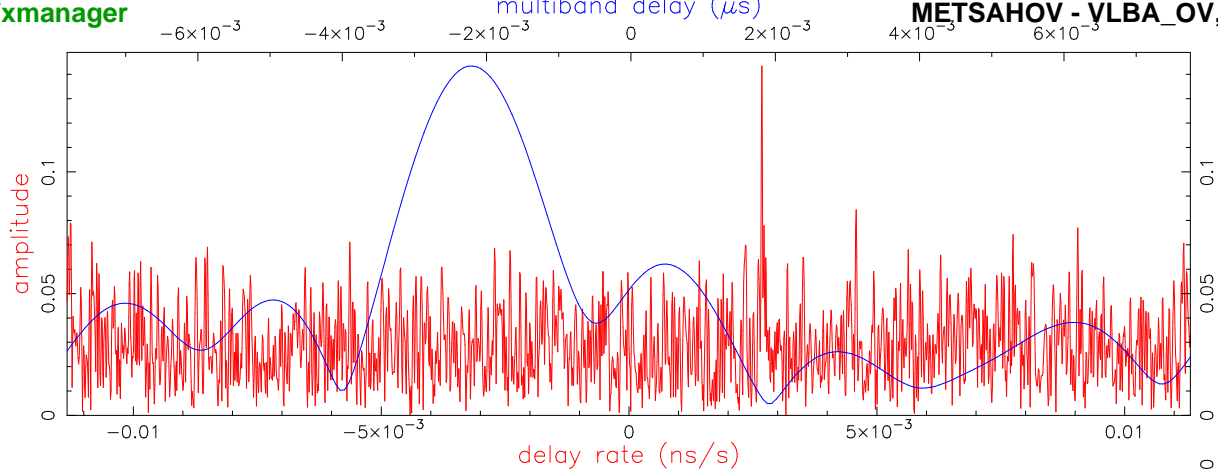
ph/seg (deg) 48.2 43.6 Search (2048X32) 0.138 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.8 76.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 28.5 25.8 Inc. seg. avg. 0.127 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 27.3 45.0 Inc. frq. avg. 0.143 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 308.5 el 26.5 pa 31.7 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 7906.759 6765.058 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Zo..1VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Zo.W.349.1VBZA

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

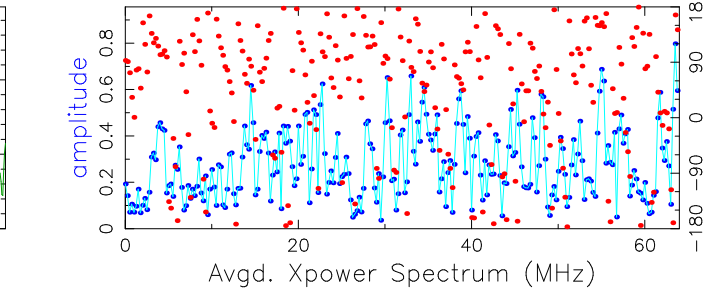
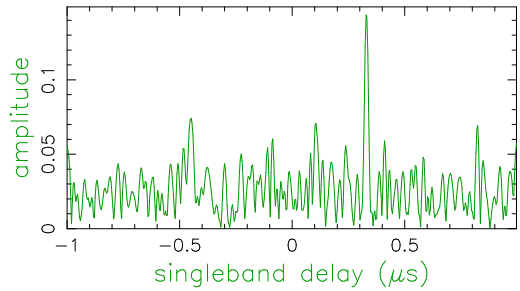
3C84.1VBZA, No0277, Zo

METSAHOV - VLBA_OV, fgroup W, pol RL



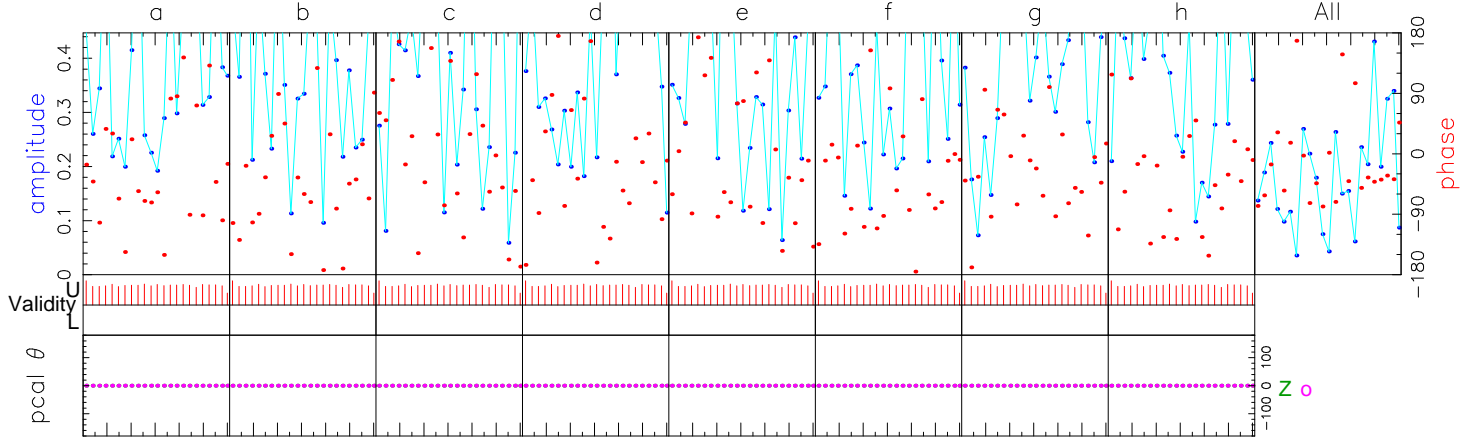
Fringe quality 0

SNR 6.4
 Int time 258.904
 Amp 0.149
 Phase -39.2
 PFD 4.0e-02
 Delays (us)
 SBD 0.329800
 MBD -0.002181
 Fringe rate (Hz)
 0.231439
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:285
 Start 074500.51
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 Corr/FF/build
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 2021:029:040727
 2020:247:085004
 RA & Dec (J2000)
 03h19m48.160095s
 +41°30'42.104042"

Amp. and Phase vs. time for each freq., 23 segs, 31 APs / seg (15.87 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-30.1	-38.3	13.0	-60.7	-69.0	-48.0	-25.2	-40.4	Phase	-39.2
	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	Ampl.	0.1
	427.3	2.5	142.6	162.9	141.3	317.2	340.6	342.2	Sbd box	341.4
U/L	699/0	699/0	699/0	699/0	699/0	699/0	699/0	699/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -1.00651302518E+04 Apriori delay (usec) -1.00654561963E+04 Resid mbdelay (usec) -2.18053E-03 +/- 1.7E-04
 Sband delay (usec) -1.00651263958E+04 Apriori clock (usec) -2.1246243E+01 Resid sbdelay (usec) 3.29800E-01 +/- 1.3E-03
 Phase delay (usec) -1.00654561976E+04 Apriori clockrate (us/s) 1.1600001E-07 Resid phdelay (usec) -1.26259E-06 +/- 5.8E-07
 Delay rate (us/s) -1.01724895590E+00 Apriori rate (us/s) -1.01725164268E+00 Resid rate (us/s) 2.68678E-06 +/- 2.8E-09
 Total phase (deg) -308.5 Apriori accel (us/s/s) 7.31175760915E-05 Resid phase (deg) -39.2 +/- 17.9

RMS Theor. Amplitude 0.149 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 65.4 42.8 Search (2048X32) 0.137 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 73.0 74.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 27.2 25.3 Inc. seg. avg. 0.146 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 33.2 44.1 Inc. frq. avg. 0.141 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 308.5 el 26.5 pa 31.7 o: az 69.9 el 64.9 pa -88.9 u,v (fr/asec) 7906.759 6765.058 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0277/Zo..11VBZA Output file: /Exps/c202b/v1/v1_3mm/1234/No0277/Zo.W.360.11VBZA