

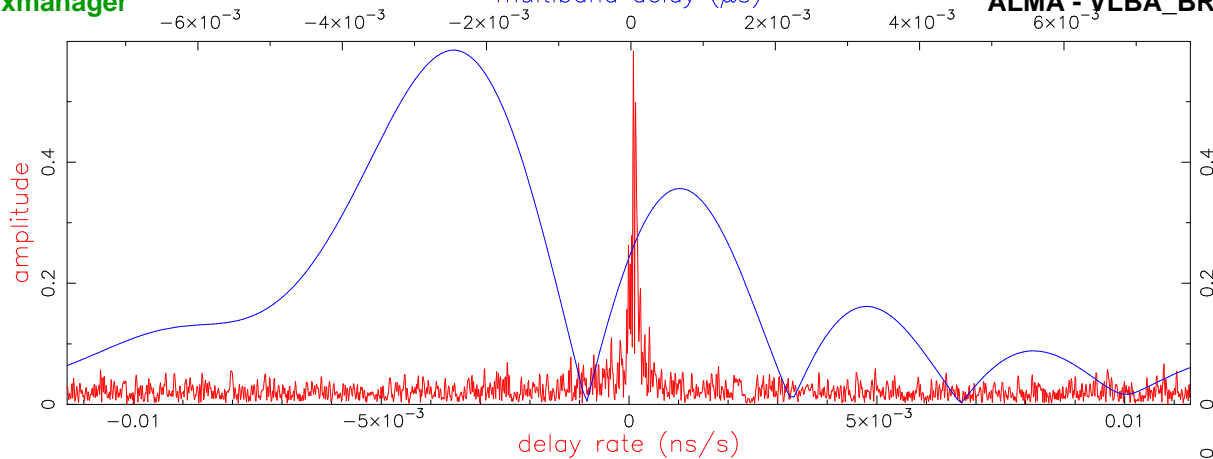
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ab

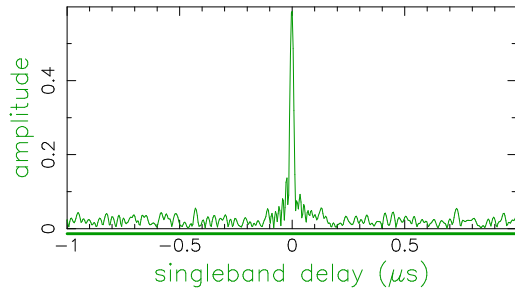
ALMA - VLBA_BR, fgroup W, pol XL

multiband delay (μ s)

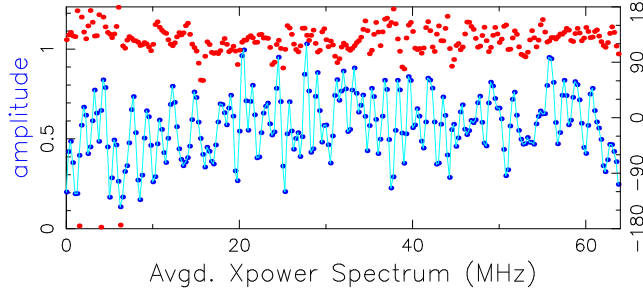


Fringe quality 4

SNR 33.6
 Int time 419.764
 Amp 0.599
 Phase 135.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.001820
 MBD -0.002361
 Fringe rate (Hz)
 0.007359
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

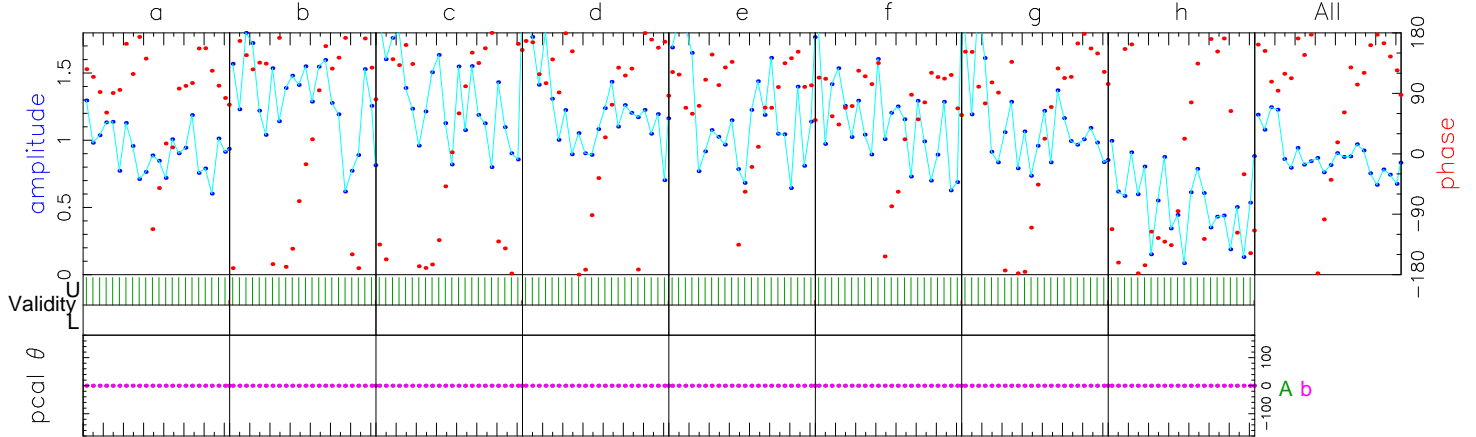


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142637
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	108.0	160.3	173.9	145.1	97.6	89.1	131.1	-161.2	Phase	135.0
	0.6	0.8	0.8	0.8	0.8	0.7	0.7	0.3	Ampl.	0.7
	258.2	256.3	255.8	256.3	256.7	256.6	256.9	259.3	Sbd box	256.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
b	0	0	0	0	0	0	0	0	PC freqs	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-5.45255440924E+02	Apriori delay (usec)	-5.45253080001E+02	Resid mbdelay (usec)	-2.36092E-03	+/-	3.2E-05
Sband delay (usec)	-5.45254900251E+02	Apriori clock (usec)	-2.1045974E+03	Resid sbdelay (usec)	-1.82025E-03	+/-	2.6E-04
Phase delay (usec)	-5.45253075648E+02	Apriori clockrate (us/s)	-2.2999999E-07	Resid phdelay (usec)	4.35296E-06	+/-	1.1E-07
Delay rate (us/s)	-7.93377038843E-01	Apriori rate (us/s)	-7.93377124277E-01	Resid rate (us/s)	8.54336E-08	+/-	4.5E-10
Total phase (deg)	22.9	Apriori accel (us/s/s)	-5.20815864347E-05	Resid phase (deg)	135.0	+/-	3.4

ph/seg (deg)	60.4	RMS	8.2	Theor.	8.2	Amplitude	0.599 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	55.5	Search (2048X32)	0.566	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
ph/frq (deg)	42.0	Inc. seg. avg.	0.883	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00
amp/frq (%)	29.4	Inc. frq. avg.	0.694	u,v (fr/asec)	4767.478 -10951.283	simultaneous interpolator						

A: az 358.7 el 46.9 pa 178.8 b: az 106.2 el 40.5 pa -43.2 u,v (fr/asec) 4767.478 -10951.283 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ab..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ab.W.14.21EBC1

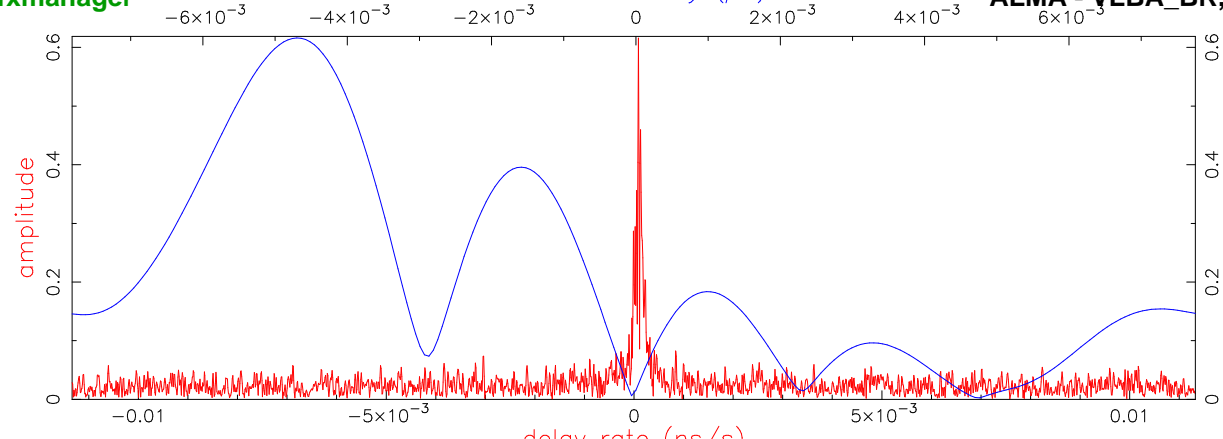
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ab

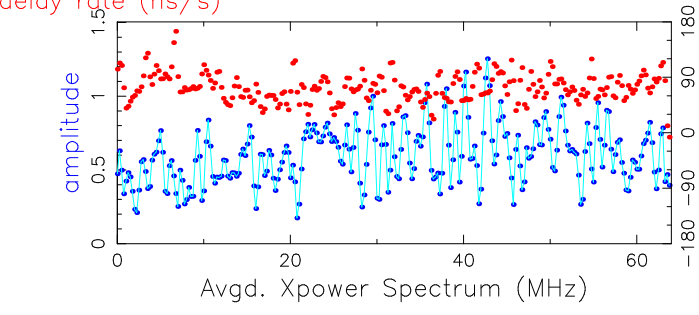
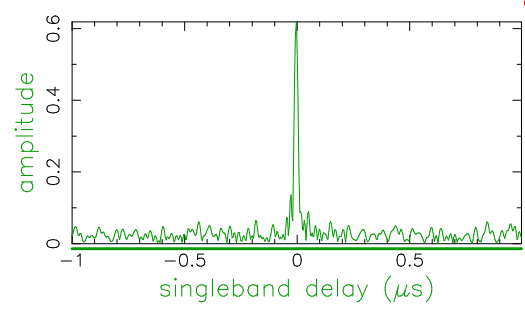
ALMA - VLBA_BR, fgroup W, pol YR

multiband delay (μ s)



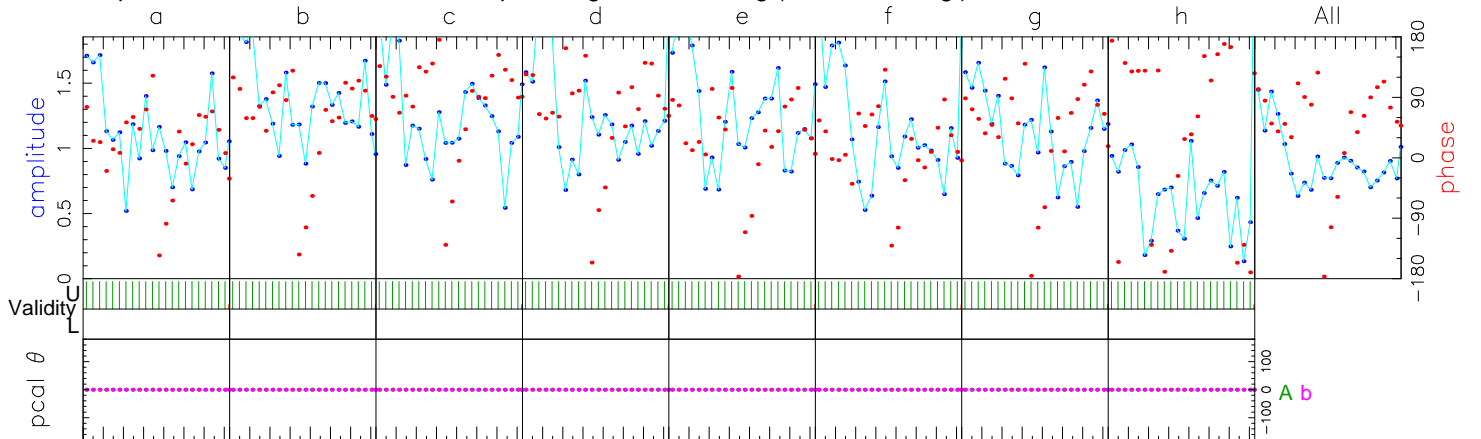
Fringe quality 4

SNR 34.7
 Int time 419.816
 Amp 0.619
 Phase 70.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.004817
 MBD -0.004743
 Fringe rate (Hz)
 0.007362
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142641
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0	PC freqs	
b	0	0	0	0	0	0	0	0	PC freqs	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec) (SBD)	-5.45257822986E+02		Apriori delay (usec)		-5.45253080001E+02		Resid mbdelay (usec)		-4.74299E-03	+/- 3.1E-05
Sband delay (usec)	-5.45257896501E+02		Apriori clock (usec)		-2.1045974E+03		Resid sbdelay (usec)		-4.81650E-03	+/- 2.5E-04
Phase delay (usec)	-5.45253077717E+02		Apriori clockrate (us/s)		-2.2999999E-07		Resid phdelay (usec)		2.28371E-06	+/- 1.1E-07
Delay rate (us/s)	-7.93377038811E-01		Apriori rate (us/s)		-7.93377124277E-01		Resid rate (us/s)		8.54655E-08	+/- 4.4E-10
Total phase (deg)			Apriori accel (us/s/s)		-5.20815864347E-05		Resid phase (deg)		70.8	+/- 3.3

ph/seg (deg) 59.4 7.9 Search (2048X32) 0.591 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 59.1 13.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.9 4.7 Inc. seg. avg. 0.902 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.0 8.2 Inc. frq. avg. 0.742 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 b: az 106.2 el 40.5 pa -43.2 u,v (fr/asec) 4767.478 -10951.283 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ab..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ab.W.33.21EBC1

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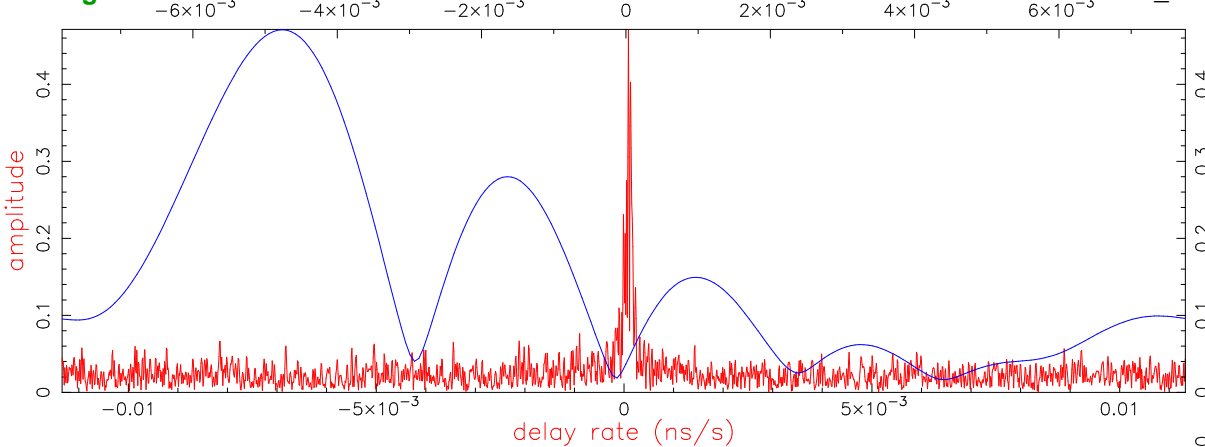
fxmanager

OJ287.21EBC1, No0042, Ab

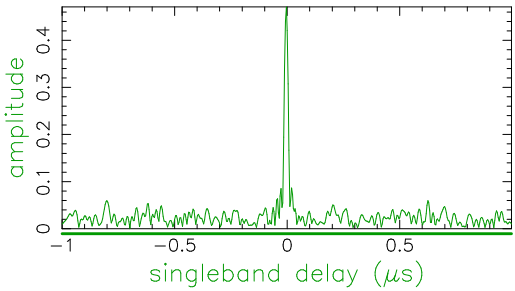
ALMA - VLBA_BR, fgroup W, pol XR

multiband delay (μ s)

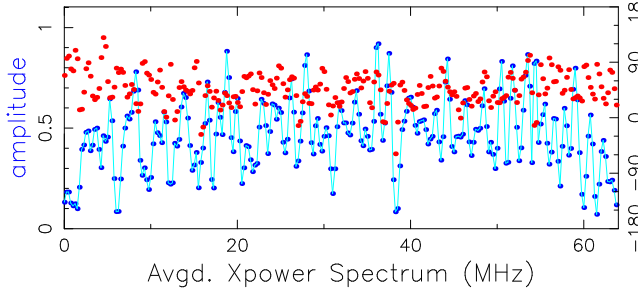
Fringe quality 6



SNR 26.4
 Int time 419.764
 Amp 0.471
 Phase 49.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.004382
 MBD -0.004788
 Fringe rate (Hz)
 0.007354
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

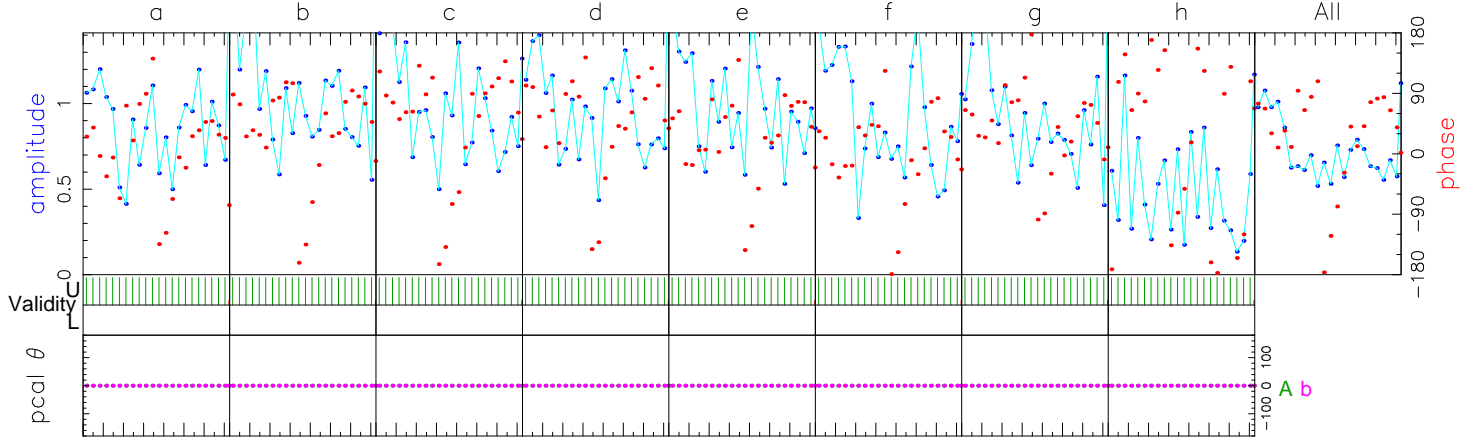


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142645
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	17.9	57.0	86.3	69.5	34.3	6.6	43.9	134.9	Phase	49.6
	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.3	Ampl.	0.5
	257.7	255.4	255.6	255.8	255.5	256.0	256.3	258.5	Sbd box	255.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
b	0	0	0	0	0	0	0	0	PC freqs	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-5.45257868018E+02	Apriori delay (usec)	-5.45253080001E+02	Resid mbdelay (usec)	-4.78802E-03	+/-	4.1E-05
Sband delay (usec)	-5.45257461751E+02	Apriori clock (usec)	-2.1045974E+03	Resid sbdelay (usec)	-4.38175E-03	+/-	3.3E-04
Phase delay (usec)	-5.45253078403E+02	Apriori clockrate (us/s)	-2.2999999E-07	Resid phdelay (usec)	1.59822E-06	+/-	1.4E-07
Delay rate (us/s)	-7.93377038901E-01	Apriori rate (us/s)	-7.93377124277E-01	Resid rate (us/s)	8.53755E-08	+/-	5.8E-10
Total phase (deg)	-62.5	Apriori accel (us/s/s)	-5.20815864347E-05	Resid phase (deg)	49.6	+/-	4.3

ph/seg (deg)	62.6	Theor.	10.4	Amplitude	0.471 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	63.6	Search (2048X32)	0.453	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	45.1	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	30.6	Inc. seg. avg.	0.710	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011	
		Inc. frq. avg.	0.549	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 358.7 el 46.9 pa 178.8 b: az 106.2 el 40.5 pa -43.2 u,v (fr/asec) 4767.478 -10951.283 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ab..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ab.W.54.21EBC1

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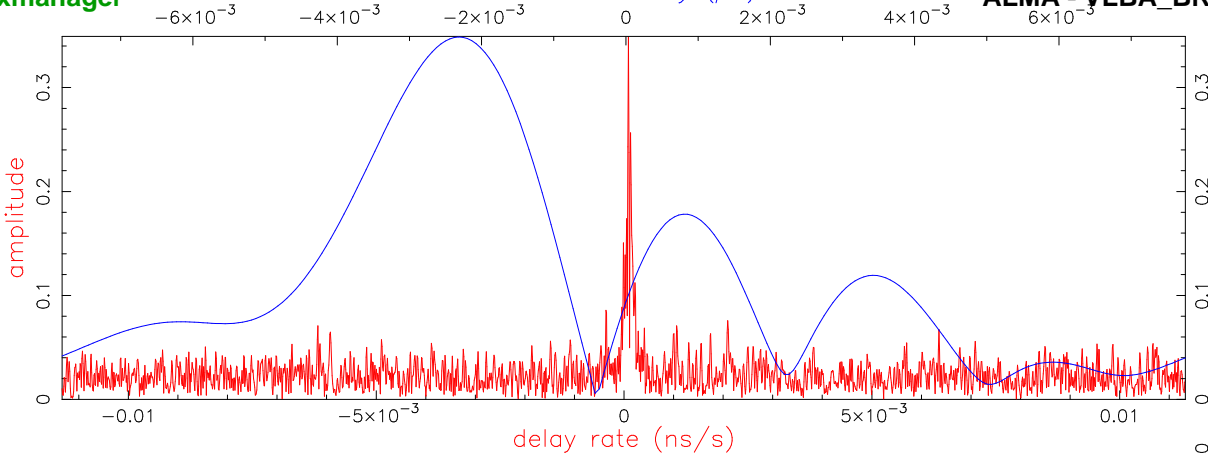
fxmanager

OJ287.21EBC1, No0042, Ab

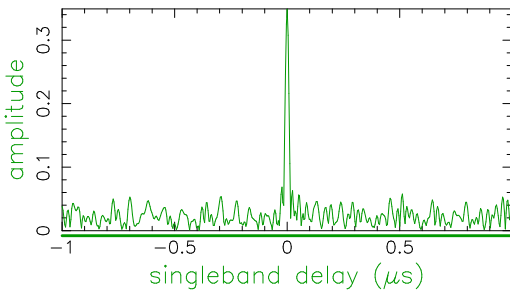
ALMA - VLBA_BR, fgroup W, pol YL

multiband delay (μ s)

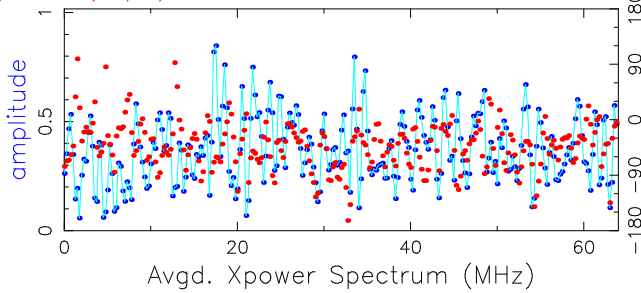
Fringe quality 8



SNR 19.6
Int time 419.816
Amp 0.349
Phase -23.4
PFD 0.0e+00
Delays (us)
SBD -0.000548
MBD -0.002337
Fringe rate (Hz)
0.007393
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

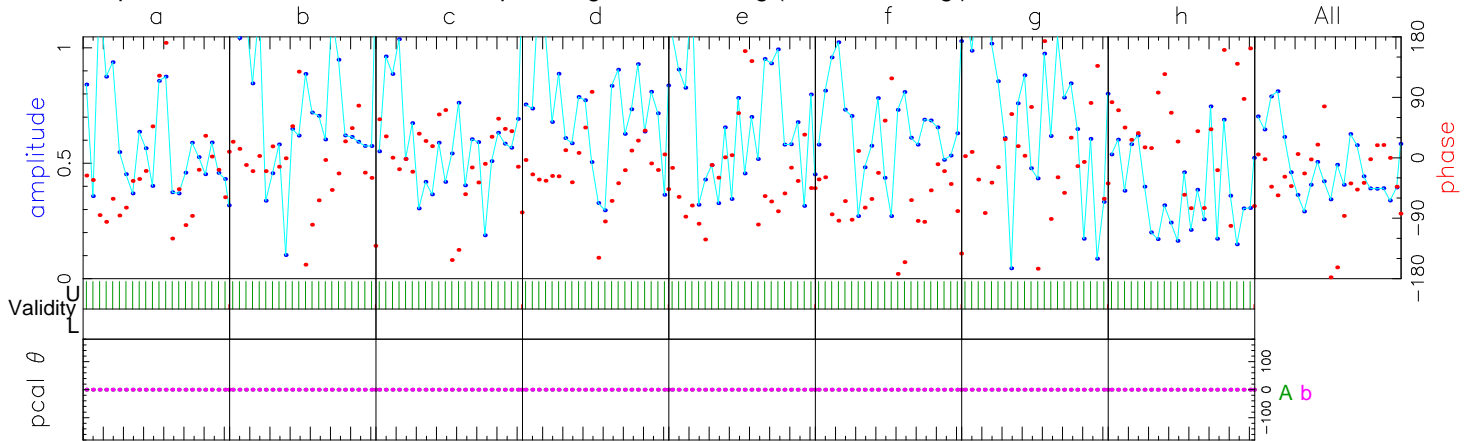


delay rate (ns/s)



Exp. mg006b
Exper # 16383
Yr:day 2021:115
Start 231500.00
Stop 232159.84
FRT 231830.00
Corr/FF/build
2022:023:120903
2022:024:142649
2021:298:085625
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-55.2	-6.8	9.5	-12.9	-49.7	-66.8	-16.9	50.8	Phase	-23.4
	0.3	0.5	0.4	0.6	0.4	0.4	0.4	0.2	Ampl.	0.4
	258.7	256.3	256.4	256.7	256.2	256.9	256.8	260.7	Sbd box	256.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
b	0	0	0	0	0	0	0	0	PC freqs	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-5.45255417268E+02		Apriori delay (usec)		-5.45253080001E+02		Resid mbdelay (usec)		-2.33727E-03	+/- 5.5E-05
Sband delay (usec)	-5.45253628501E+02		Apriori clock (usec)		-2.1045974E+03		Resid sbdelay (usec)		-5.48500E-04	+/- 4.4E-04
Phase delay (usec)	-5.45253080755E+02		Apriori clockrate (us/s)		-2.2999999E-07		Resid phdelay (usec)		-7.53947E-07	+/- 1.9E-07
Delay rate (us/s)	-7.93377038456E-01		Apriori rate (us/s)		-7.93377124277E-01		Resid rate (us/s)		8.58205E-08	+/- 7.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-5.20815864347E-05		Resid phase (deg)		-23.4	+/- 5.9

ph/seg (deg) 56.2 14.0 Search (2048X32) 0.338 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 58.3 24.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 42.0 8.3 Inc. seg. avg. 0.478 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 34.3 14.5 Inc. frq. avg. 0.399 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
A: az 358.7 el 46.9 pa 178.8 b: az 106.2 el 40.5 pa -43.2 u,v (fr/asec) 4767.478 -10951.283 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ab..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ab.W.75.21EBC1 simultaneous interpolator

Mk4/DiFX fourfit 3.23 rev 3383

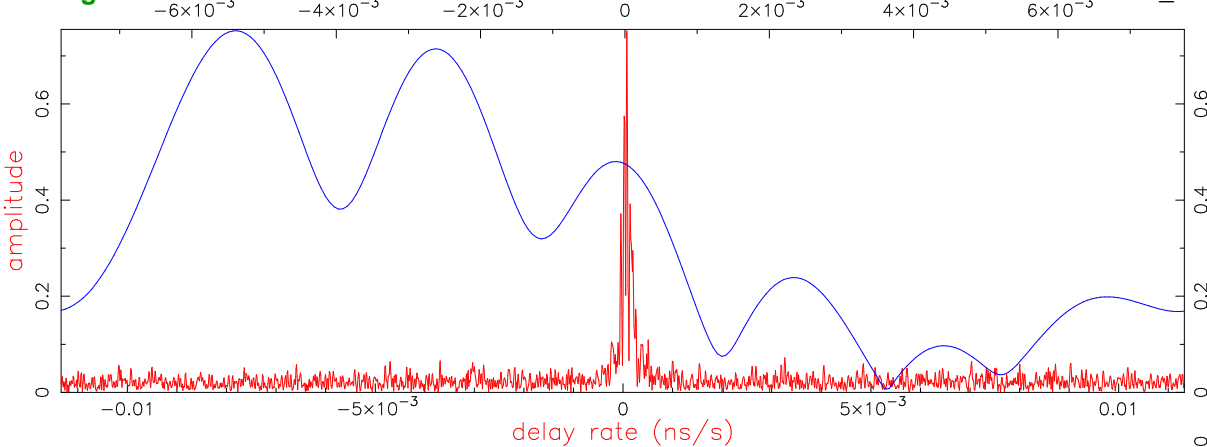
fxmanager

OJ287.21EBC1, No0042, Af

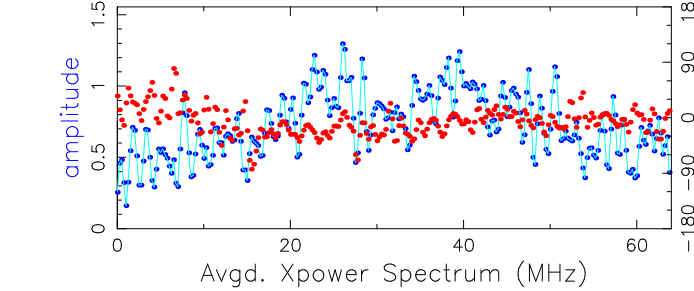
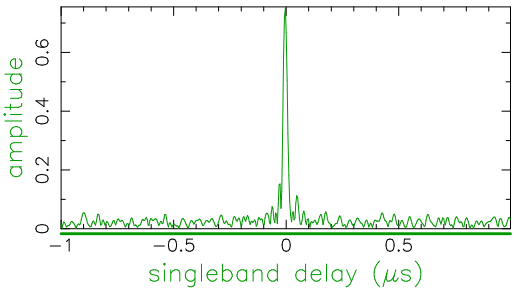
ALMA - VLBA_FD, fgroup W, pol XL

multiband delay (μ s)

Fringe quality 3

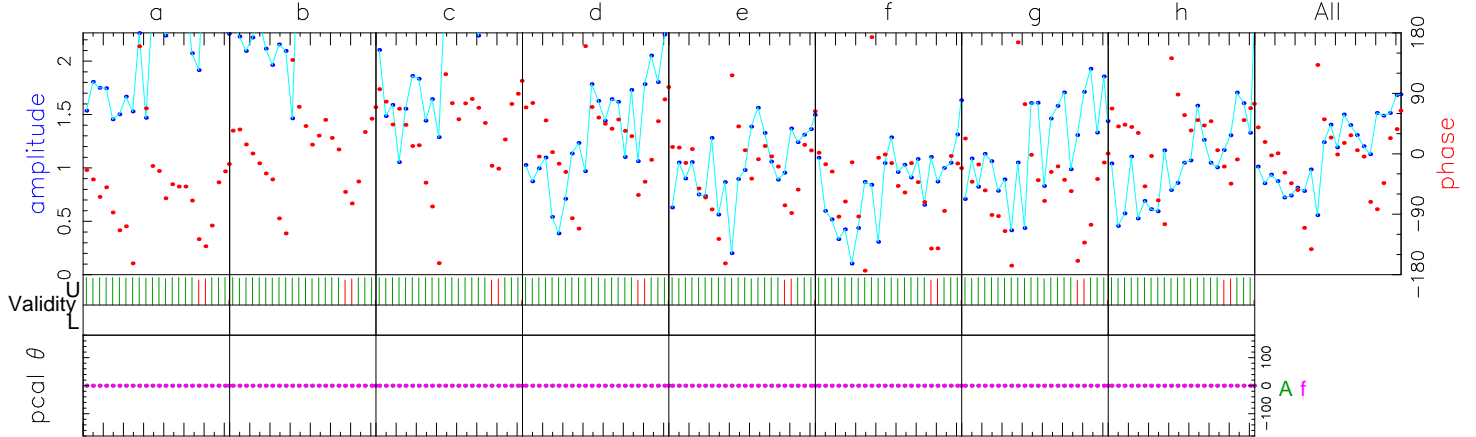


SNR 42.1
 Int time 414.945
 Amp 0.755
 Phase -1.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.004831
 MBD -0.005441
 Fringe rate (Hz)
 0.006307
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142637
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-65.3	9.6	54.4	32.3	-21.9	-45.7	-54.7	29.7	Phase	-1.9
	1.4	1.9	1.5	0.8	0.7	0.5	0.7	0.7	Ampl.	1.0
	257.5	255.8	255.4	255.1	255.5	255.6	255.9	257.4	Sbd box	255.8
U/L	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
f	0	0	0	0	0	0	0	0	PC freqs	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-4.48824668040E+03		Apriori delay (usec)		-4.48824123953E+03		Resid mbdelay (usec)		-5.44087E-03	+/- 2.6E-05
Sband delay (usec)	-4.48824607003E+03		Apriori clock (usec)		-2.1178274E+03		Resid sbdelay (usec)		-4.83050E-03	+/- 2.0E-04
Phase delay (usec)	-4.48824123959E+03		Apriori clockrate (us/s)		-3.8999999E-07		Resid phdelay (usec)		-5.99870E-08	+/- 8.8E-08
Delay rate (us/s)	-7.52694259859E-01		Apriori rate (us/s)		-7.52694333081E-01		Resid rate (us/s)		7.32216E-08	+/- 3.6E-10
Total phase (deg)			Apriori accel (us/s/s)		-2.21044087245E-05		Resid phase (deg)		-1.9	+/- 2.7

RMS Theor. Amplitude 0.755 +/- 0.018
 ph/seg (deg) 58.9 6.5 Search (2048X32) 0.717
 amp/seg (%) 65.4 11.4 Interp. 0.000
 ph/frq (deg) 49.3 3.9 Inc. seg. avg. 1.128
 amp/frq (%) 71.0 6.7 Inc. frq. avg. 1.024

Group delay (usec) (SBD) -4.48824668040E+03
 Sband delay (usec) -4.48824607003E+03
 Phase delay (usec) -4.48824123959E+03
 Delay rate (us/s) -7.52694259859E-01
 Total phase (deg) -136.3

Apriori delay (usec) -4.48824123953E+03
 Apriori clock (usec) -2.1178274E+03
 Apriori clockrate (us/s) -3.8999999E-07
 Apriori rate (us/s) -7.52694333081E-01
 Apriori accel (us/s/s) -2.21044087245E-05

Resid mbdelay (usec) -5.44087E-03
 Resid sbdelay (usec) -4.83050E-03
 Resid phdelay (usec) -5.99870E-08
 Resid rate (us/s) 7.32216E-08
 Resid phase (deg) -1.9

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

simultaneous interpolator

A: az 358.7 el 46.9 pa 178.8 f: az 100.1 el 56.6 pa -64.6 u,v (fr/asec) 4564.274 -8135.091

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Af..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Af.W.10.21EBC1

Mk4/DiFX fourfit 3.23 rev 3383

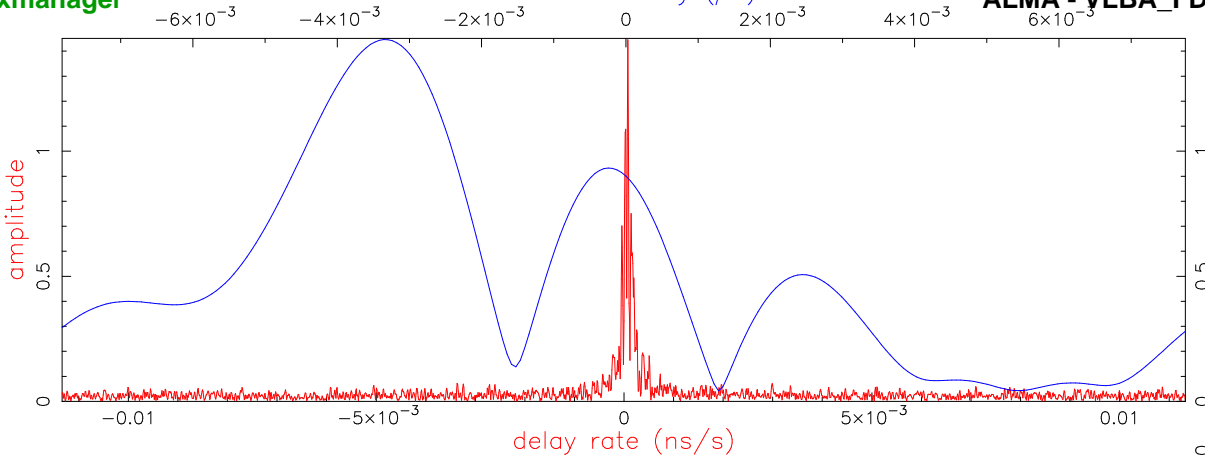
fxmanager

OJ287.21EBC1, No0042, Af

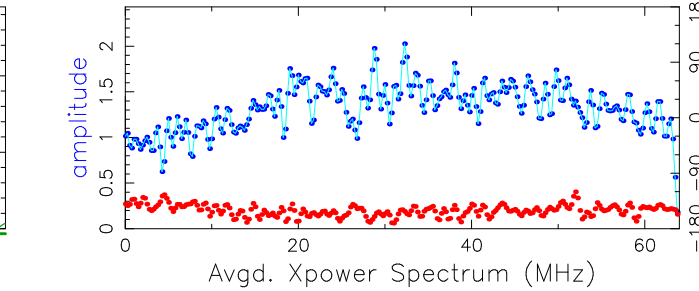
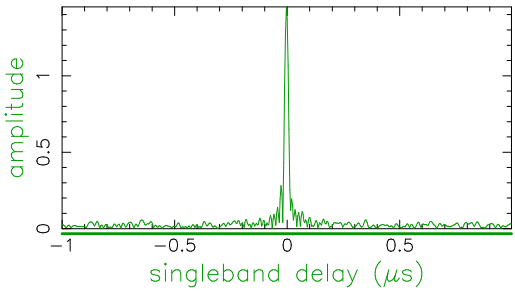
ALMA - VLBA_FD, fgroup W, pol YR

multiband delay (μ s)

Fringe quality 2

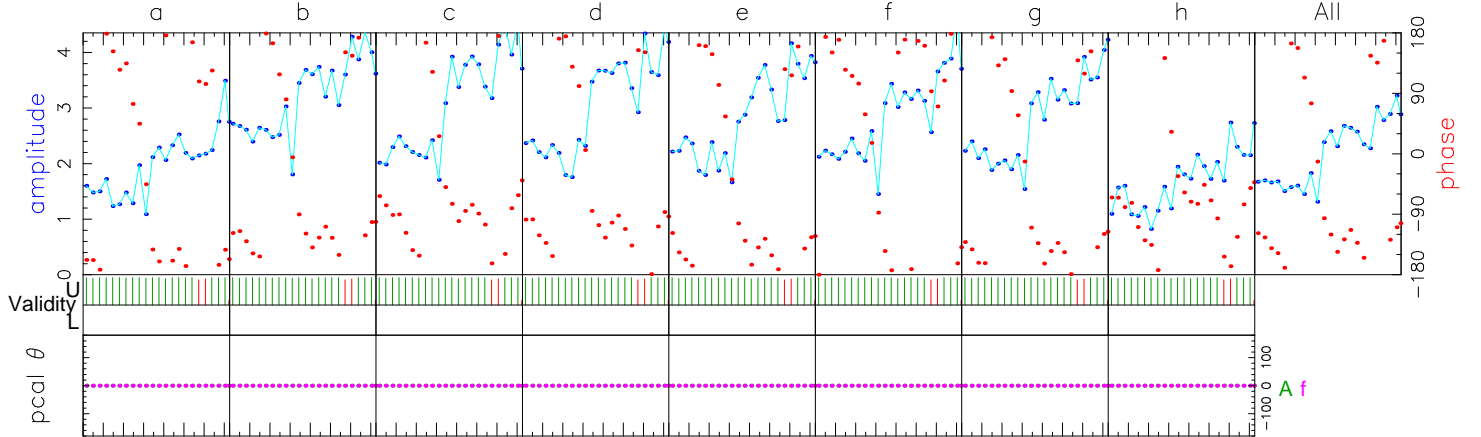


SNR 80.8
 Int time 414.997
 Amp 1.451
 Phase -148.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.003124
 MBD -0.003294
 Fringe rate (Hz) 0.006353
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build 2022:023:120903
 2022:024:142640
 2021:298:085625
 RA & Dec (J2000) 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0		
A	0	0	0	0	0	0	0	0		
f	0	0	0	0	0	0	0	0		
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
f	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-4.48824453362E+03									
Sband delay (usec)	-4.48824436353E+03									
Phase delay (usec)	-4.48824124433E+03									
Delay rate (us/s)	-7.52694259329E-01									
Total phase (deg)			-283.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
simultaneous interpolator										

A: az 358.7 el 46.9 pa 178.8 f: az 100.1 el 56.6 pa -64.6 u,v (fr/asec) 4564.274 -8135.091
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Af..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Af.W.28.21EBC1

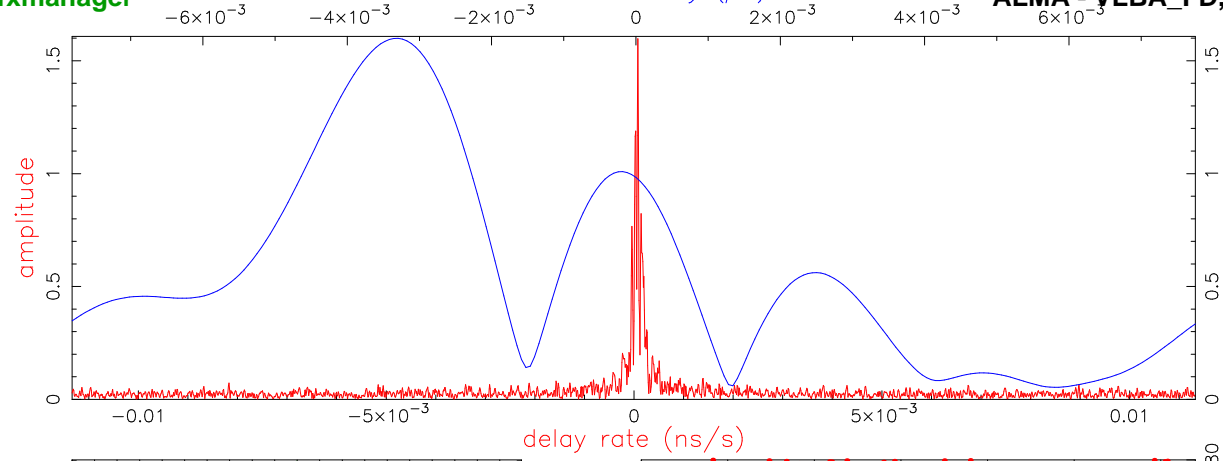
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

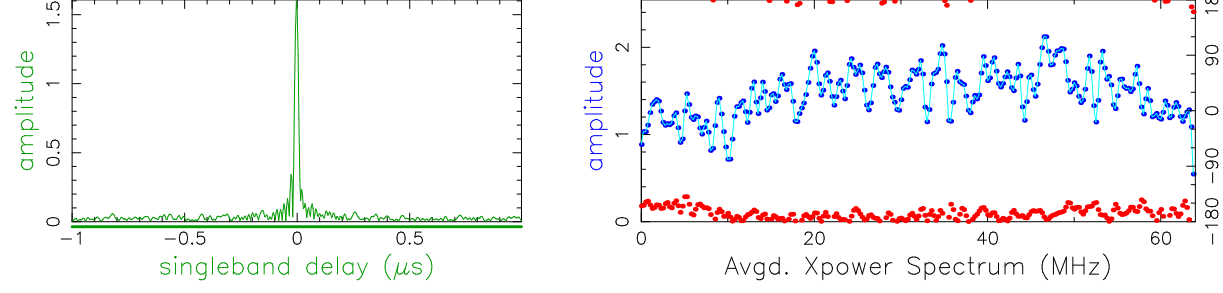
OJ287.21EBC1, No0042, Af

ALMA - VLBA_FD, fgroup W, pol XR

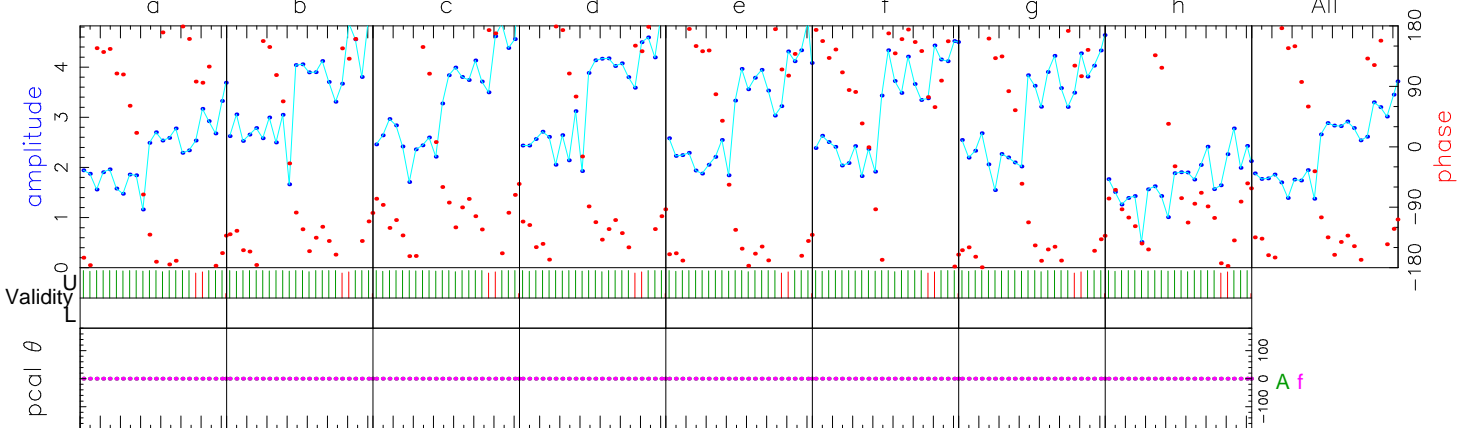
multiband delay (μ s)



Fringe quality 2
 SNR 89.6
 Int time 414.946
 Amp 1.608
 Phase -163.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.002897
 MBD -0.003268
 Fringe rate (Hz) 0.006317
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142644
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0		
A	0	0	0	0	0	0	0	0	Phase	-163.1
f	0	0	0	0	0	0	0	0	Ampl.	2.0
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	256.3
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	PC phase	
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec) (SBD)	-4.48824450759E+03				-4.48824123953E+03				Resid mbdelay (usec)	-3.26806E-03 +/- 1.2E-05
Sband delay (usec)	-4.48824413603E+03				-2.1178274E+03				Resid sbdelay (usec)	-2.89650E-03 +/- 9.6E-05
Phase delay (usec)	-4.48824124479E+03				-3.8999999E-07				Resid phdelay (usec)	-5.25866E-06 +/- 4.1E-08
Delay rate (us/s)	-7.52694259745E-01				-7.52694333081E-01				Resid rate (us/s)	7.33364E-08 +/- 1.7E-10
Total phase (deg)			-297.5		-2.21044087245E-05				Resid phase (deg)	-163.1 +/- 1.3
	RMS	Theor.	Amplitude	1.608 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	56.7	3.1	Search (2048X32)	1.527					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	62.8	5.3	Interp.	0.000					Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	43.8	1.8	Inc. seg. avg.	2.379					SampCntNorm: enabled	dr window (ns/s) -0.011 0.011
amp/frq (%)	33.0	3.2	Inc. frq. avg.	1.951					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	ion window (TEC) 0.00 0.00
									Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite
A: az 358.7 el 46.9 pa 178.8			f: az 100.1 el 56.6 pa -64.6							simultaneous interpolator
Control file: cf_1234_gmva			Input file: /Exps/mg006b/v1/1234/No0042/Af..21EBC1							Output file: /Exps/mg006b/v1/1234/No0042/Af.W.48.21EBC1

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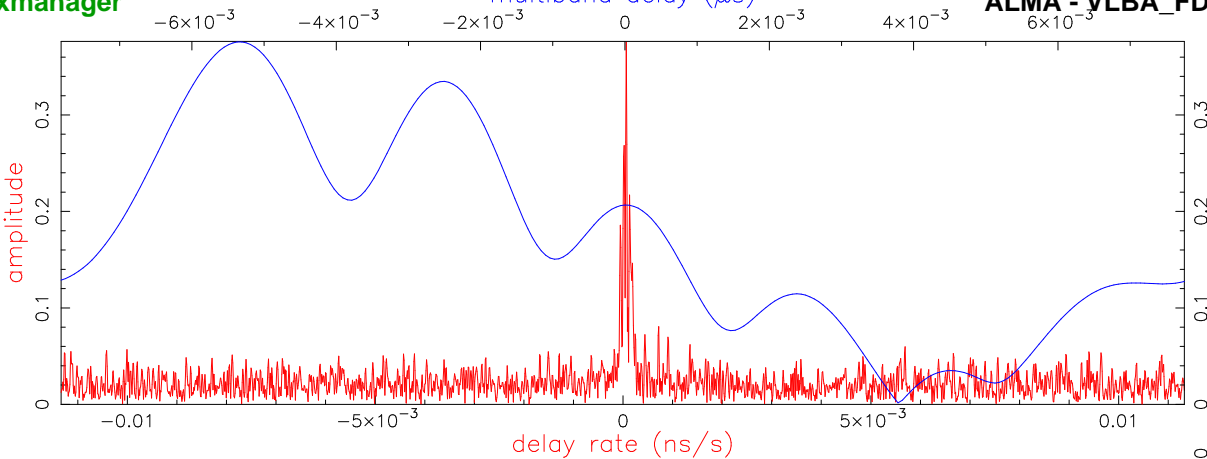
fxmanager

OJ287.21EBC1, No0042, Af

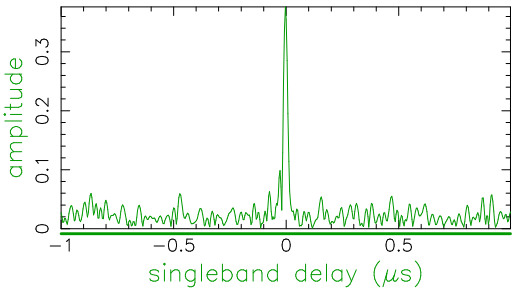
ALMA - VLBA_FD, fgroup W, pol YL

multiband delay (μ s)

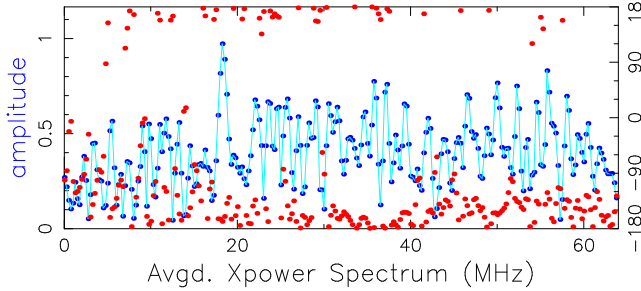
Fringe quality 7



SNR 21.0
 Int time 414.997
 Amp 0.376
 Phase -132.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.003389
 MBD -0.005313
 Fringe rate (Hz) 0.006172
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

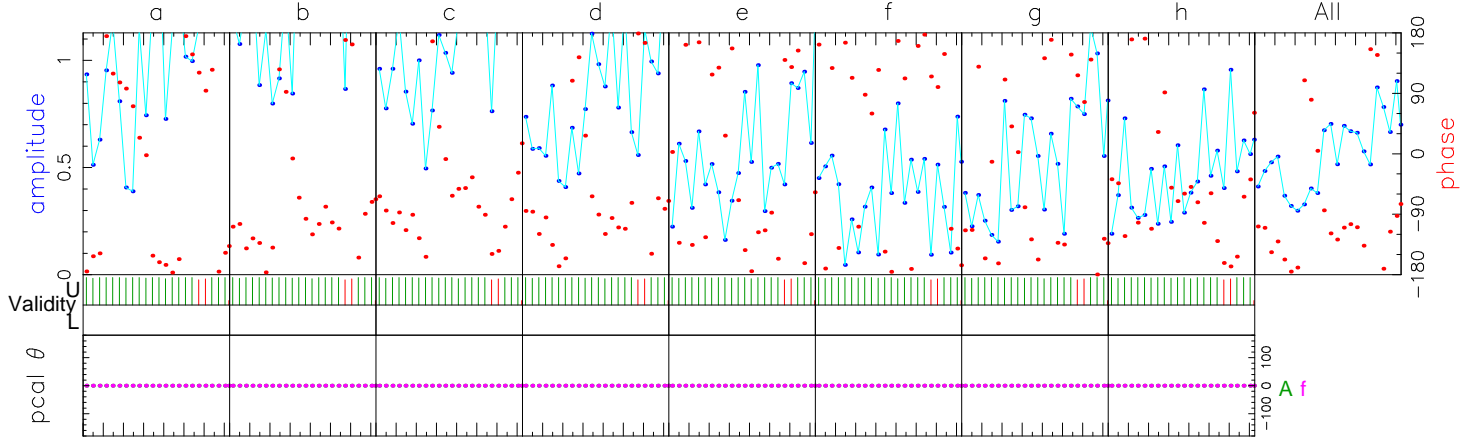


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142648
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	166.7	-117.0	-78.4	-109.3	-162.7	166.6	172.7	-99.6	Phase	-132.0
A	0.7	1.0	0.8	0.5	0.3	0.3	0.3	0.3	Ampl.	0.5
f	257.6	255.9	255.5	255.5	256.0	255.8	256.3	257.3	Sbd box	256.1
A	816/0	816/0	816/0	816/0	816/0	816/0	816/0	816/0	APs used	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
A:f	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-4.48824655294E+03	Apriori delay (usec)	-4.48824123953E+03	Resid mbdelay (usec)	-5.31341E-03	+/-	5.2E-05
Sband delay (usec)	-4.48824462853E+03	Apriori clock (usec)	-2.1178274E+03	Resid sbdelay (usec)	-3.38900E-03	+/-	4.1E-04
Phase delay (usec)	-4.48824124379E+03	Apriori clockrate (us/s)	-3.8999999E-07	Resid phdelay (usec)	-4.25711E-06	+/-	1.8E-07
Delay rate (us/s)	-7.52694261432E-01	Apriori rate (us/s)	-7.52694333081E-01	Resid rate (us/s)	7.16486E-08	+/-	7.3E-10
Total phase (deg)	-266.4	Apriori accel (us/s/s)	-2.21044087245E-05	Resid phase (deg)	-132.0	+/-	5.5

ph/seg (deg)	59.8	RMS	13.1	Theor.	0.376 +/- 0.018	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	67.1	Search (2048X32)	0.350	Amplitude		PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	52.0	Interp.	0.000	Search (2048X32)		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	75.4	Inc. seg. avg.	0.546	Inc. frq. avg.	0.507	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.507			Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 358.7 el 46.9 pa 178.8 f: az 100.1 el 56.6 pa -64.6 u,v (fr/asec) 4564.274 -8135.091 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Af..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Af.W.69.21EBC1

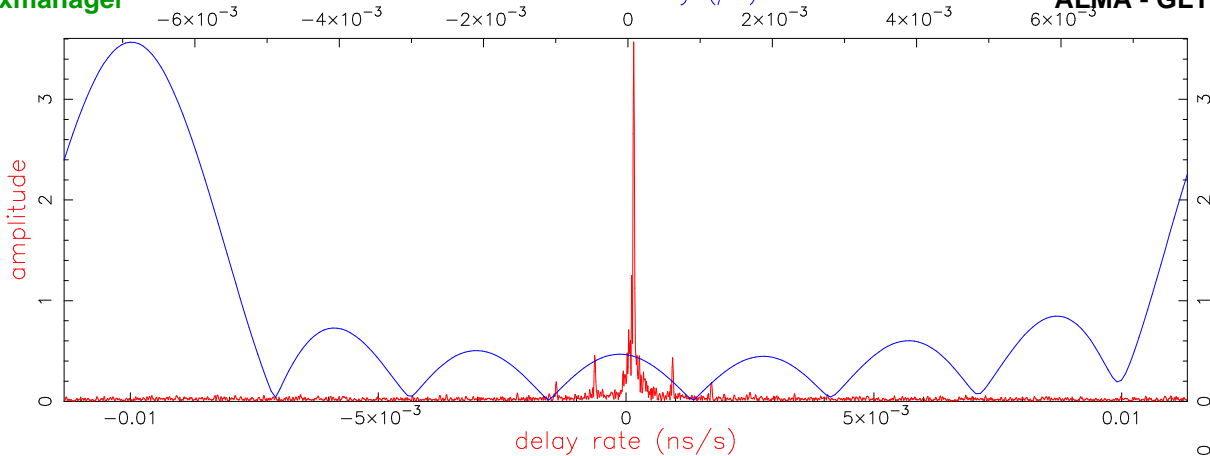
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ag

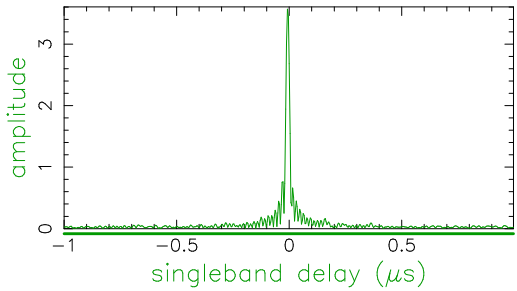
ALMA - GLT, fgroup W, pol YR

multiband delay (μ s)

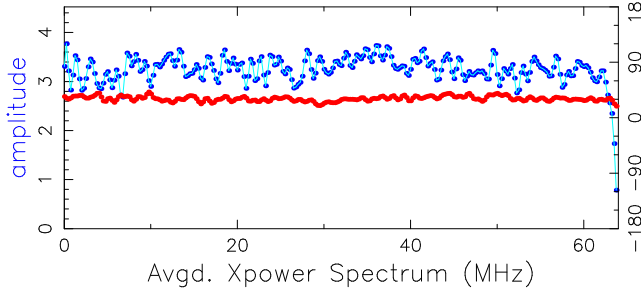


Fringe quality 8

SNR 202.0
Int time 419.826
Amp 3.605
Phase 34.5
PFD 0.0e+00
Delays (us)
SBD -0.006560
MBD -0.006879
Fringe rate (Hz) 0.013274
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

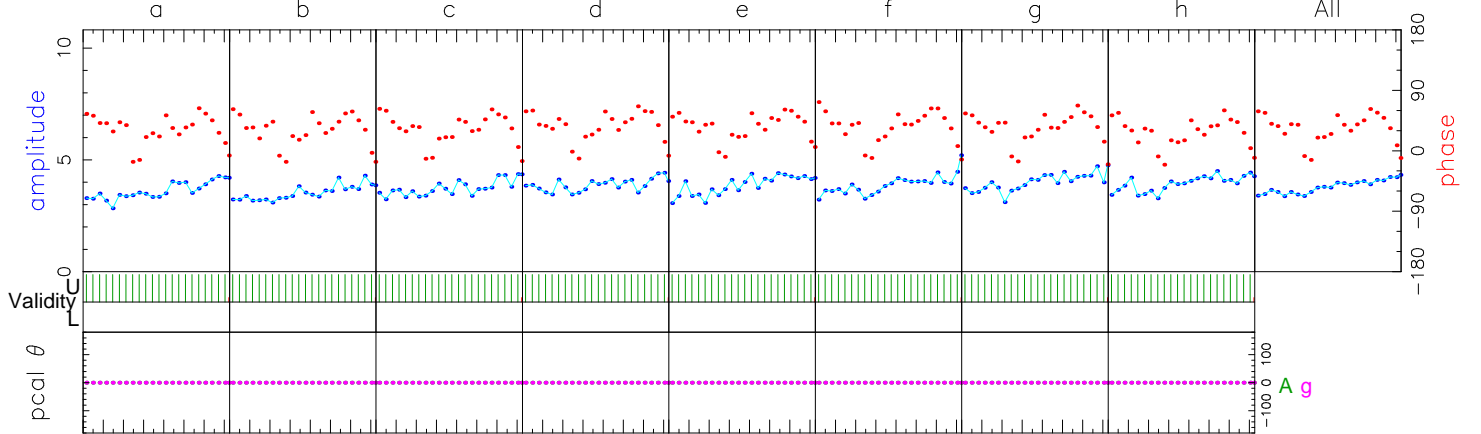


delay rate (ns/s)



Exp. mg006b
Exper # 16383
Yr:day 2021:115
Start 231500.00
Stop 232159.84
FRT 231830.00
Corr/FF/build
2022:023:120903
2022:024:142639
2021:298:085625
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0		
g	0	0	0	0	0	0	0	0		
A:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
g	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	32.9	32.2	33.6	38.4	37.2	37.3	36.0	28.5		
Sband delay (usec)	3.4	3.3	3.5	3.7	3.7	3.6	3.7	3.7		
Phase delay (usec)	255.3	255.0	255.3	255.4	255.5	255.6	255.3	255.2		
Delay rate (us/s)										
Total phase (deg)			152.8							
Apriori delay (usec)		1.73530573255E+03			1.73531261120E+03					
Apriori clock (usec)		1.73530605145E+03			-2.1080125E+03					
Apriori clockrate (us/s)		1.73531261231E+03			-3.8999999E-07					
Apriori rate (us/s)		-4.14131420377E-02			-4.14132961313E-02					
Apriori accel (us/s/s)					-7.30602701055E-05					
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode:	MANUAL, MANUAL		PC period (AP's) 5, 5							
Pcal rate:	0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000							
Bits/sample:	2x2		SampCntNorm: enabled mb window (us) -0.008 0.008							
Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us		dr window (ns/s) -0.011 0.011							
Data rate (Mb/s):	2048		nlags: 256 t_cohere infinite							
ion window (TEC)	0.00 0.00		simultaneous interpolator							

A: az 358.7 el 46.9 pa 178.8 g: az 180.0 el 33.5 pa 0.2 u,v (fr/asec) 153.697 -13431.620
Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ag..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ag.W.22.21EBC1

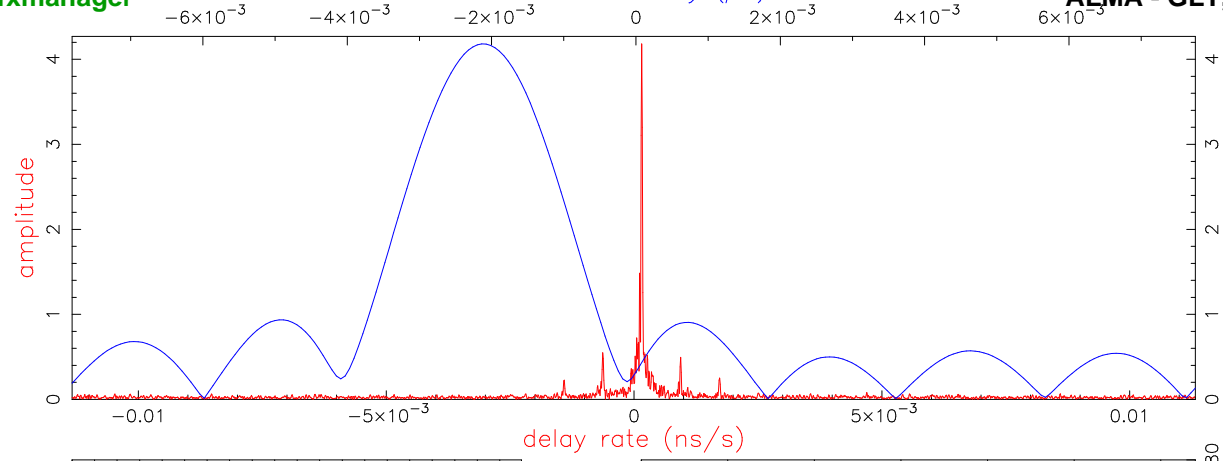
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ag

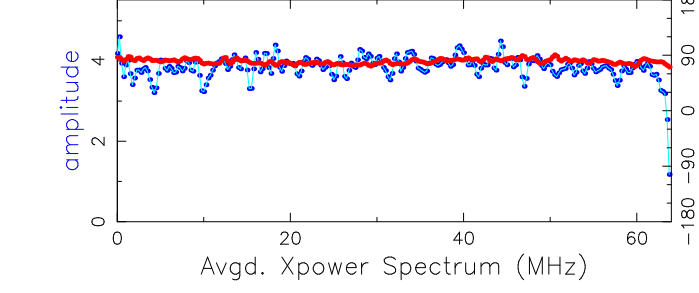
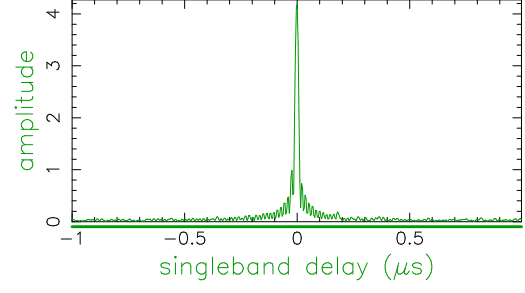
ALMA - GLT, fgroup W, pol XL

multiband delay (μ s)



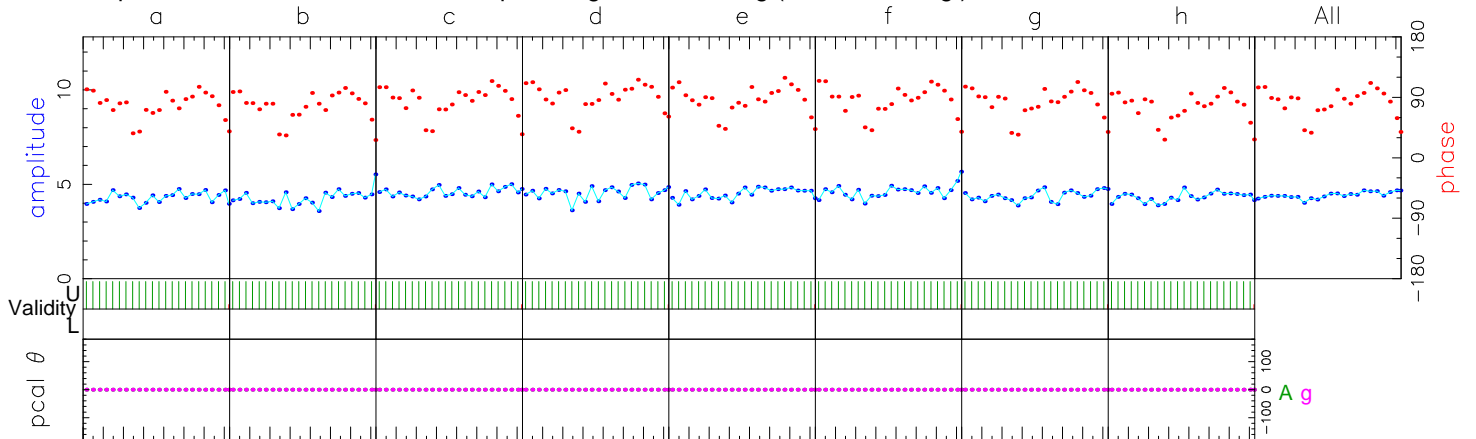
Fringe quality 8

SNR 239.2
 Int time 419.775
 Amp 4.270
 Phase 84.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.001781
 MBD -0.002119
 Fringe rate (Hz)
 0.013256
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142636
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		256.5
A	0	0	0	0	0	0	0	0	Phase	84.2
A:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Ampl.	4.2
A:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	256.5
A	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	PC freqs	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC phase	
									Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Tracks	
Group delay (usec) (SBD)	1.73531049196E+03				1.73531261120E+03				Resid mbdelay (usec)	-2.11924E-03 +/- 4.5E-06
Sband delay (usec)	1.73531083020E+03				-2.1080125E+03				Resid sbdelay (usec)	-1.78100E-03 +/- 3.6E-05
Phase delay (usec)	1.73531261391E+03				-3.8999999E-07				Resid phdelay (usec)	2.71535E-06 +/- 1.5E-08
Delay rate (us/s)	-4.14131422375E-02				-4.14132961313E-02				Resid rate (us/s)	1.53894E-07 +/- 6.4E-11
Total phase (deg)		202.4			-7.30602701055E-05				Resid phase (deg)	84.2 +/- 0.5

ph/seg (deg) 19.3 1.1 Search (2048X32) 4.085 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 5.2 2.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 5.4 0.7 Inc. seg. avg. 4.420 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 3.2 1.2 Inc. frq. avg. 4.196 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 g: az 180.0 el 33.5 pa 0.2 u,v (fr/asec) 153.697 -13431.620 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ag..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ag.W.3.21EBC1 simultaneous interpolator

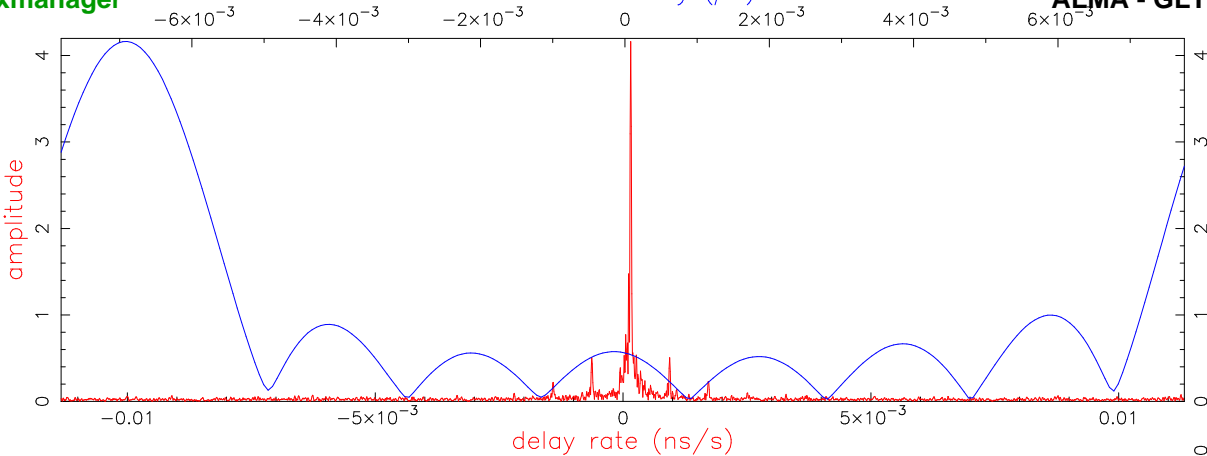
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ag

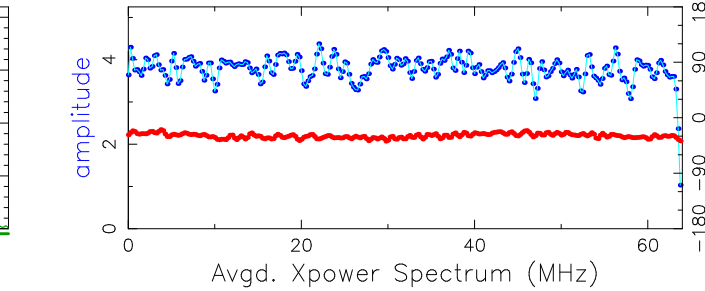
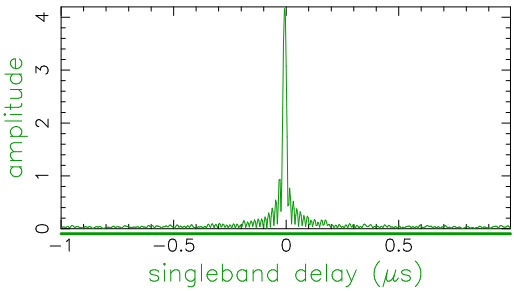
ALMA - GLT, fgroup W, pol XR

multiband delay (μ s)



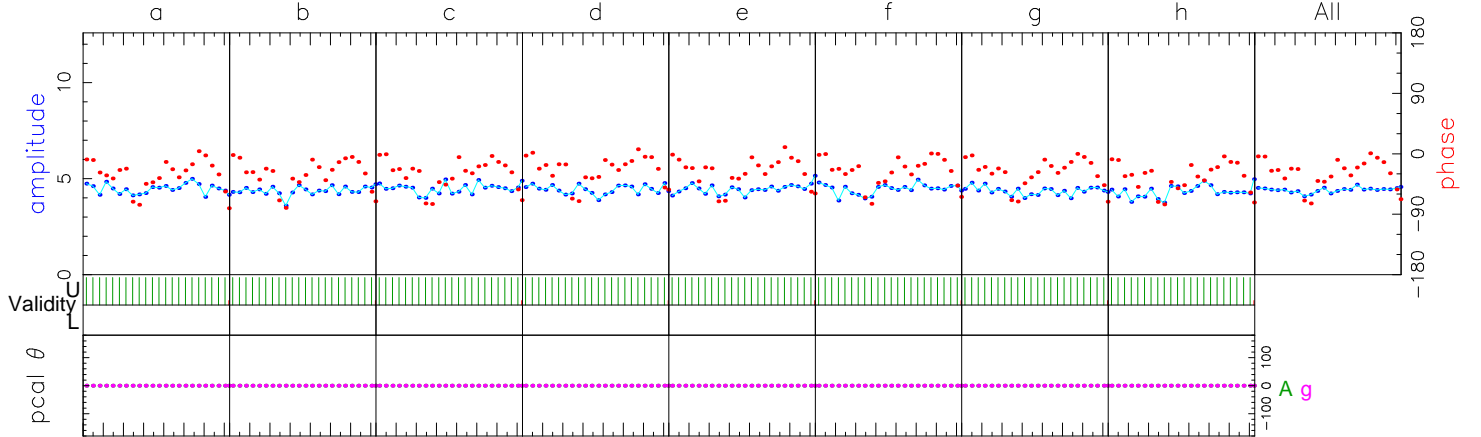
Fringe quality 8

SNR 235.2
 Int time 419.775
 Amp 4.199
 Phase -26.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.006683
 MBD -0.006915
 Fringe rate (Hz) 0.013284
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Yr:day 16383
 Start 2021:115
 Stop 2021:115
 FRT 231830.00
 Corr/FF/build 2022:023:120903
 2022:024:142643
 2021:298:085625
 RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-28.9	-28.0	-27.6	-22.5	-25.0	-24.1	-25.2	-32.8	Phase	-26.8
	4.2	4.1	4.2	4.2	4.2	4.2	4.1	4.1	Ampl.	4.2
	255.2	255.0	255.3	255.4	255.5	255.6	255.2	255.1	Sbd box	255.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
A:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.73530569642E+03		Apriori delay (usec)		1.73531261120E+03		Resid mbdelay (usec)		-6.91477E-03	+/- 4.6E-06
Sband delay (usec)	1.73530592795E+03		Apriori clock (usec)		-2.1080125E+03		Resid sbdelay (usec)		-6.68325E-03	+/- 3.7E-05
Phase delay (usec)	1.73531261033E+03		Apriori clockrate (us/s)		-3.8999999E-07		Resid phdelay (usec)		-8.62870E-07	+/- 1.6E-08
Delay rate (us/s)	-4.14131419158E-02		Apriori rate (us/s)		-4.14132961313E-02		Resid rate (us/s)		1.54215E-07	+/- 6.5E-11
Total phase (deg)	91.5		Apriori accel (us/s/s)		-7.30602701055E-05		Resid phase (deg)		-26.8	+/- 0.5

RMS Theor. Amplitude 4.199 +/- 0.018
 ph/seg (deg) 19.7 1.2 Search (2048X32) 4.113 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 5.9 2.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.5 0.7 Inc. seg. avg. 4.410 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 1.4 1.2 Inc. frq. avg. 4.169 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 g: az 180.0 el 33.5 pa 0.2 u,v (fr/asec) 153.697 -13431.620 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ag..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ag.W.45.21EBC1

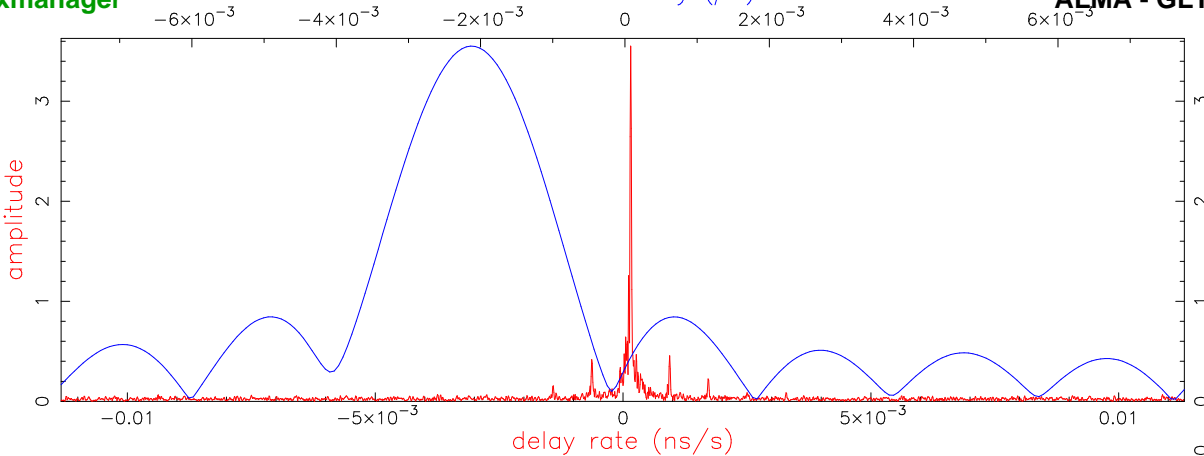
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ag

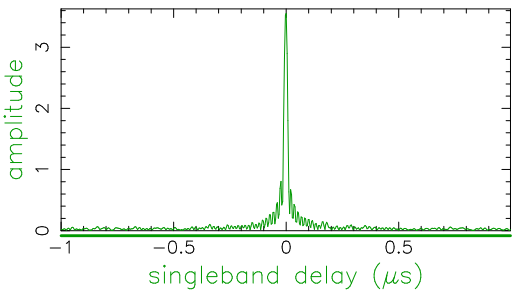
ALMA - GLT, fgroup W, pol YL

multiband delay (μ s)

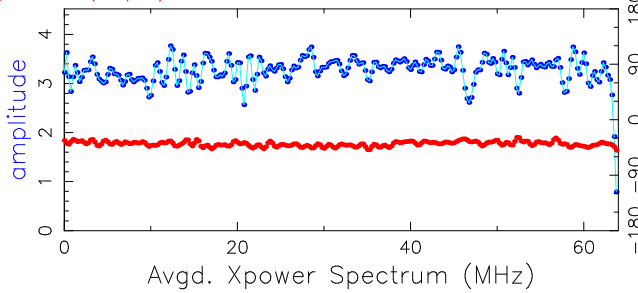


Fringe quality 8

SNR 203.3
 Int time 419.826
 Amp 3.628
 Phase -35.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.001806
 MBD -0.002131
 Fringe rate (Hz)
 0.013235
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

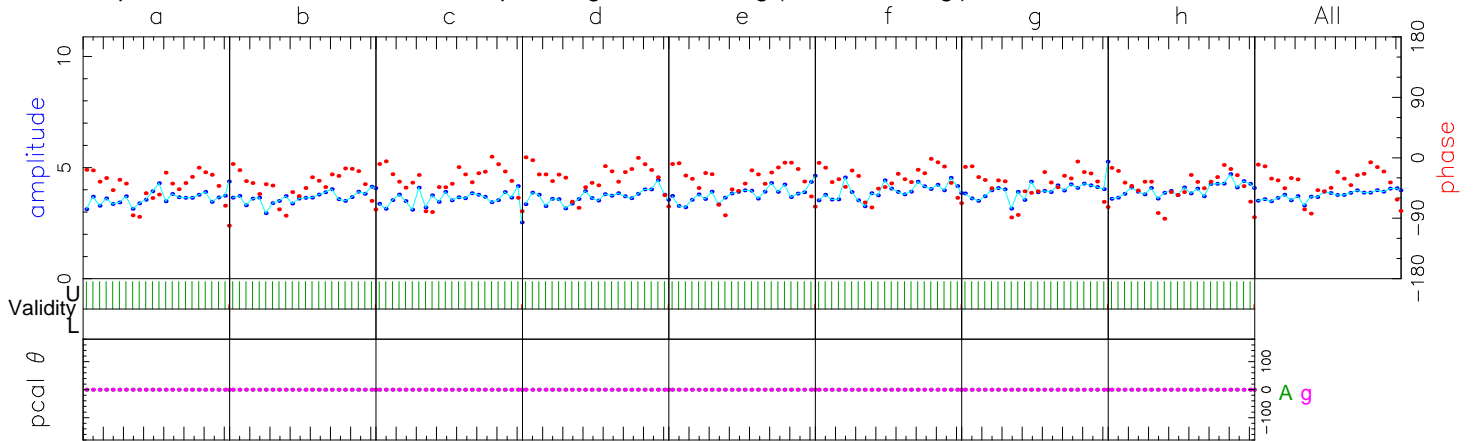


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142647
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-41.4	-39.3	-32.3	-28.1	-31.7	-31.7	-37.6	-40.4	Phase	-35.3
	3.4	3.4	3.4	3.5	3.6	3.7	3.7	3.8	Ampl.	3.6
	256.5	256.4	256.5	256.6	256.7	256.7	256.4	256.5	Sbd box	256.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
g	0	0	0	0	0	0	0	0	PC freqs	
A:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:g	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
g	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	1.73531048052E+03		Apriori delay (usec)		1.73531261120E+03		Resid mbdelay (usec)		-2.13068E-03	+/- 5.3E-06
Sband delay (usec)	1.73531080495E+03		Apriori clock (usec)		-2.1080125E+03		Resid sbdelay (usec)		-1.80625E-03	+/- 4.2E-05
Phase delay (usec)	1.73531261006E+03		Apriori clockrate (us/s)		-3.8999999E-07		Resid phdelay (usec)		-1.13922E-06	+/- 1.8E-08
Delay rate (us/s)	-4.14131424805E-02		Apriori rate (us/s)		-4.14132961313E-02		Resid rate (us/s)		1.53651E-07	+/- 7.5E-11
Total phase (deg)	82.9		Apriori accel (us/s/s)		-7.30602701055E-05		Resid phase (deg)		-35.3	+/- 0.6

RMS Theor. Amplitude 3.628 +/- 0.018
 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 A: az 358.7 el 46.9 pa 178.8 g: az 180.0 el 33.5 pa 0.2 u,v (fr/asec) 153.697 -13431.620
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ag..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ag.W.65.21EBC1

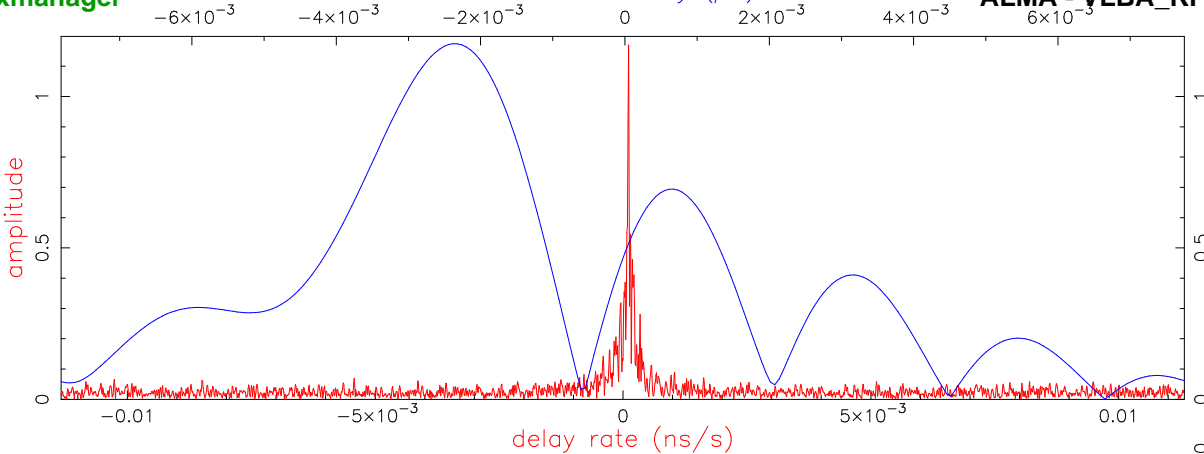
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ak

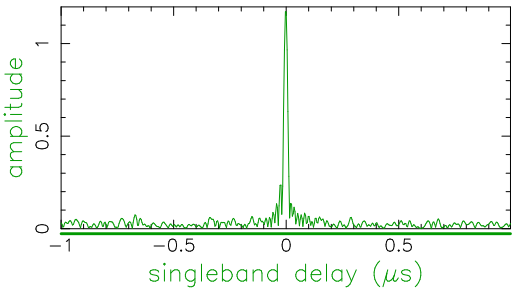
ALMA - VLBA_KP, fgroup W, pol YR

multiband delay (μ s)

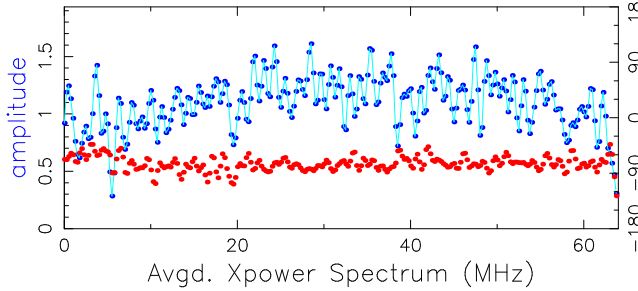


Fringe quality 3

SNR 67.2
 Int time 419.824
 Amp 1.199
 Phase -69.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.001994
 MBD -0.002461
 Fringe rate (Hz)
 0.009615
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

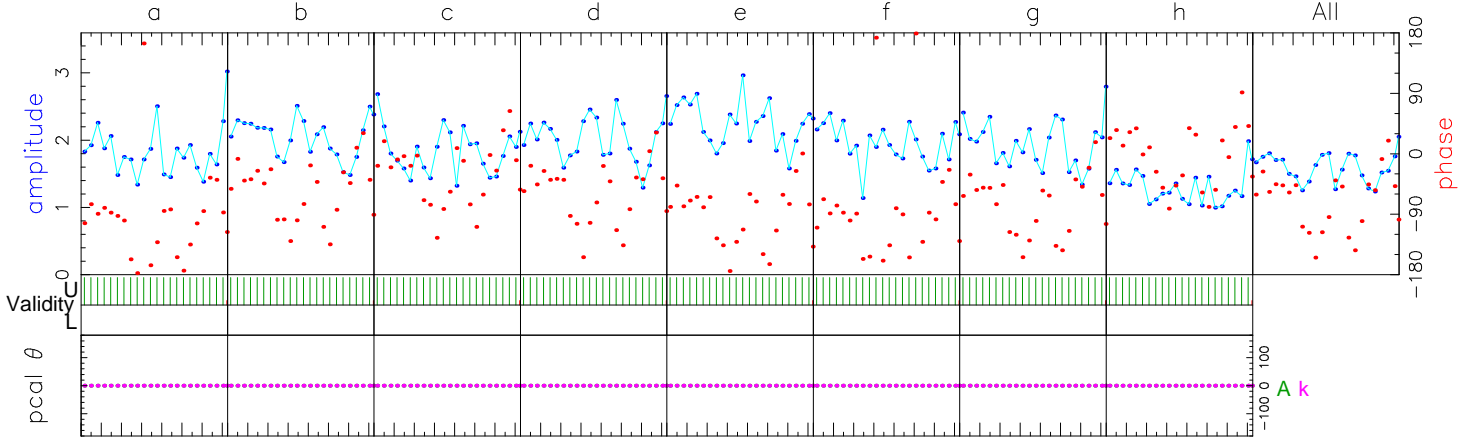


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142640
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-109.2	-53.0	-28.5	-57.9	-88.9	-106.6	-75.7	2.5	Phase	-69.4
	1.4	1.5	1.3	1.5	1.7	1.5	1.4	0.9	Ampl.	1.4
	258.1	256.3	255.8	255.9	256.6	256.2	256.9	258.5	Sbd box	256.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.02761832857E+03		Apriori delay (usec)		-3.02761586720E+03		Resid mbdelay (usec)		-2.46137E-03	+/- 1.6E-05
Sband delay (usec)	-3.02761786170E+03		Apriori clock (usec)		-2.1079001E+03		Resid sbdelay (usec)		-1.99450E-03	+/- 1.3E-04
Phase delay (usec)	-3.02761586944E+03		Apriori clockrate (us/s)		-3.3000000E-07		Resid phdelay (usec)		-2.23747E-06	+/- 5.5E-08
Delay rate (us/s)	-8.73492063705E-01		Apriori rate (us/s)		-8.73492175322E-01		Resid rate (us/s)		1.11617E-07	+/- 2.3E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.05800336285E-05		Resid phase (deg)		-69.4	+/- 1.7

ph/seg (deg) 43.4 4.1 Search (2048X32) 1.167 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 35.8 7.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.1 2.4 Inc. seg. avg. 1.577 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 23.2 4.2 Inc. frq. avg. 1.391 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 k: az 96.5 el 49.9 pa -63.8 u,v (fr/asec) 5287.280 -8545.663 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ak..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ak.W.27.21EBC1 simultaneous interpolator

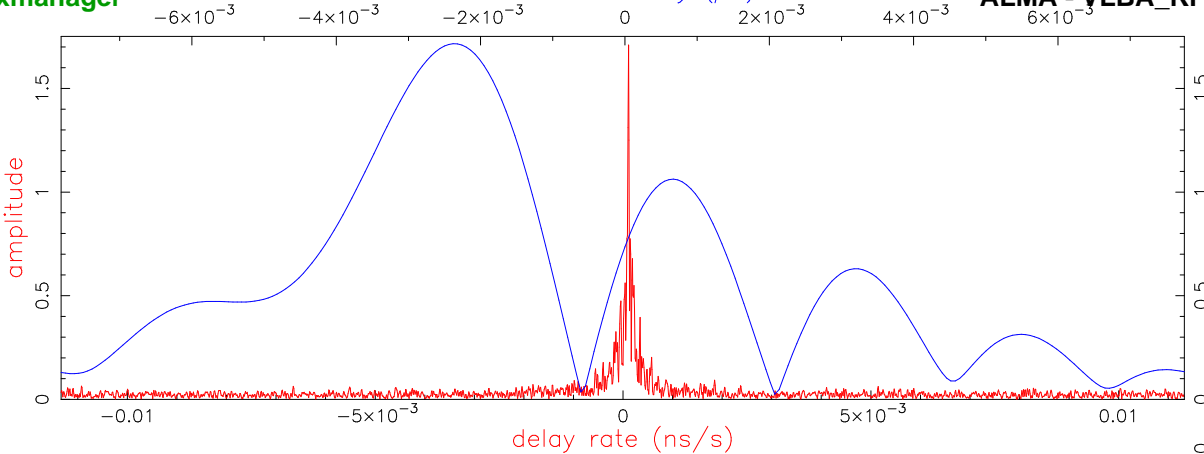
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ak

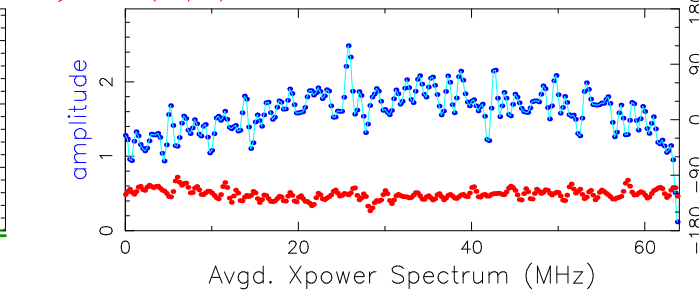
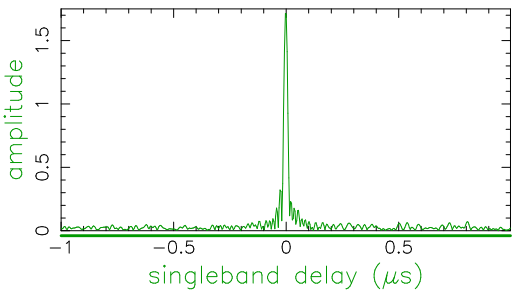
ALMA - VLBA_KP, fgroup W, pol XR

multiband delay (μ s)



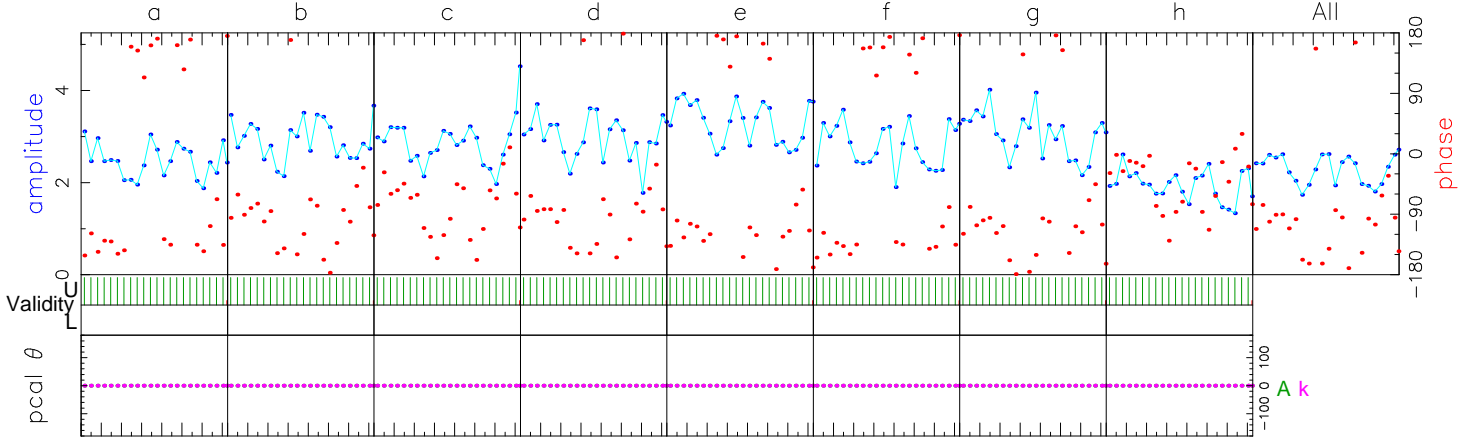
Fringe quality 3

SNR 98.1
 Int time 419.772
 Amp 1.751
 Phase -116.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.002008
 MBD -0.002467
 Fringe rate (Hz)
 0.009623
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142644
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-158.6	-102.7	-75.0	-103.7	-138.0	-158.4	-124.7	-39.3	Phase	-116.6
	1.9	2.2	2.1	2.2	2.4	2.1	2.3	1.5	Ampl.	2.1
	258.2	256.3	256.1	256.0	256.6	256.1	257.0	258.5	Sbd box	256.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-3.02761833461E+03	Apriori delay (usec)	-3.02761586720E+03	Resid mbdelay (usec)	-2.46740E-03	+/-	1.1E-05
Sband delay (usec)	-3.02761787520E+03	Apriori clock (usec)	-2.1079001E+03	Resid sbdelay (usec)	-2.00800E-03	+/-	8.8E-05
Phase delay (usec)	-3.02761587096E+03	Apriori clockrate (us/s)	-3.3000000E-07	Resid phdelay (usec)	-3.75911E-06	+/-	3.8E-08
Delay rate (us/s)	-8.73492063607E-01	Apriori rate (us/s)	-8.73492175322E-01	Resid rate (us/s)	1.17115E-07	+/-	1.6E-10
Total phase (deg)	-44.9	Apriori accel (us/s/s)	-3.05800336285E-05	Resid phase (deg)	-116.6	+/-	1.2

ph/seg (deg)	42.7	2.8	Amplitude	1.751 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	34.6	4.9	Search (2048X32)	1.705	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.9	1.7	Inc. seg. avg.	2.277	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	24.6	2.9	Inc. frq. avg.	2.085	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
A:	az 358.7 el 46.9 pa 178.8	k:	az 96.5 el 49.9 pa -63.8	u,v (fr/asec)	5287.280 -8545.663	nlags:	256 t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ak..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ak.W.49.21EBC1 simultaneous interpolator

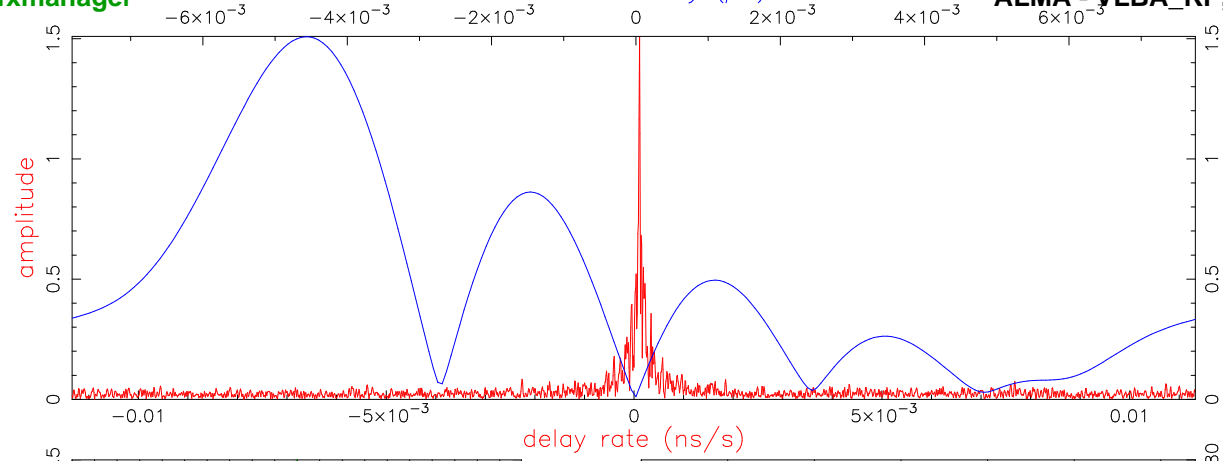
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

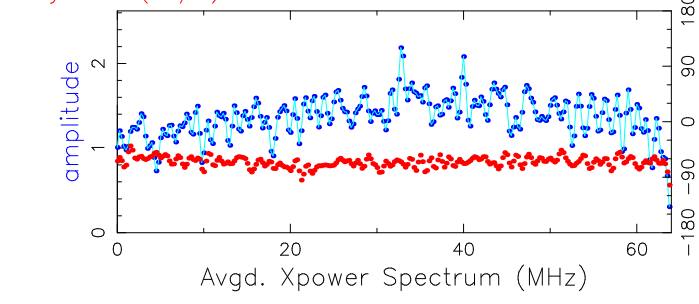
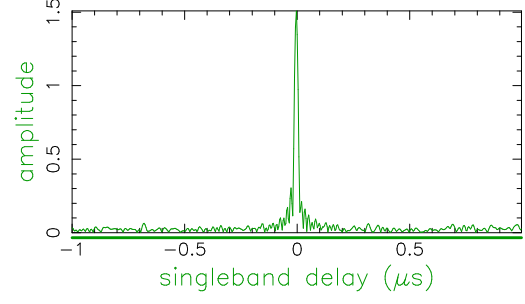
OJ287.21EBC1, No0042, Ak

ALMA - VLBA_KP, fgroup W, pol XL

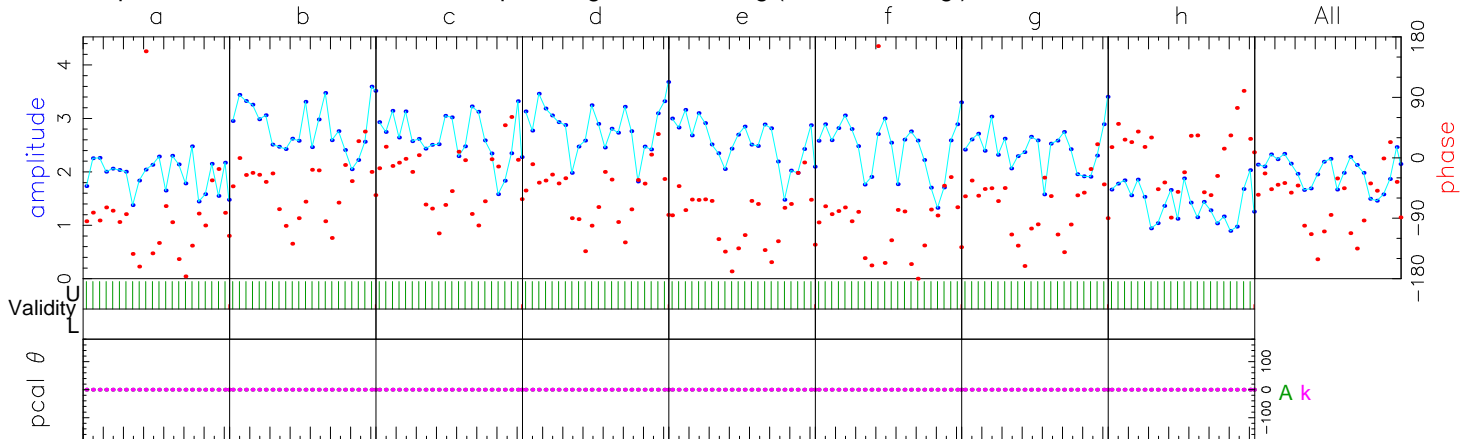
multiband delay (μ s)



Fringe quality 3
 SNR 84.6
 Int time 419.772
 Amp 1.509
 Phase -62.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.004293
 MBD -0.004585
 Fringe rate (Hz) 0.009551
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142636
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-104.7	-42.1	-27.6	-50.3	-86.8	-103.0	-70.2	9.3	Phase	-62.1
	1.5	2.2	1.9	2.1	1.9	1.8	1.8	1.0	Ampl.	1.8
	257.7	255.9	255.4	255.7	256.0	255.7	256.2	258.3	Sbd box	255.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.02762045195E+03		Apriori delay (usec)		-3.02761586720E+03		Resid mbdelay (usec)		-4.58475E-03	+/- 1.3E-05
Sband delay (usec)	-3.02762015970E+03		Apriori clock (usec)		-2.1079001E+03		Resid sbdelay (usec)		-4.29250E-03	+/- 1.0E-04
Phase delay (usec)	-3.02761586920E+03		Apriori clockrate (us/s)		-3.3000000E-07		Resid phdelay (usec)		-2.00126E-06	+/- 4.4E-08
Delay rate (us/s)	-8.73492064443E-01		Apriori rate (us/s)		-8.73492175322E-01		Resid rate (us/s)		1.10879E-07	+/- 1.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.05800336285E-05		Resid phase (deg)		-62.1	+/- 1.4

ph/seg (deg) 43.0 3.2 Amplitude 1.509 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 37.4 5.7 Search (2048X32) 1.485 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.8 1.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.7 3.3 Inc. seg. avg. 1.994 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 k: az 96.5 el 49.9 pa -63.8 u,v (fr/asec) 5287.280 -8545.663 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ak..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ak.W.5.21EBC1 simultaneous interpolator

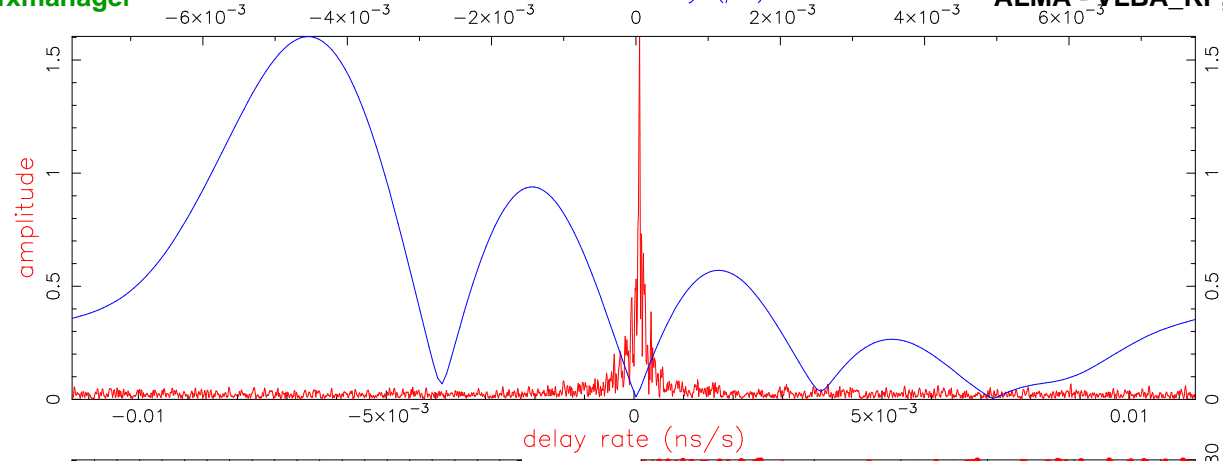
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ak

ALMA - VLBA_KP, fgroup W, pol YL

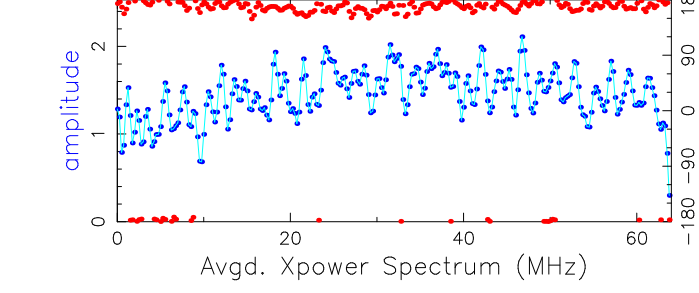
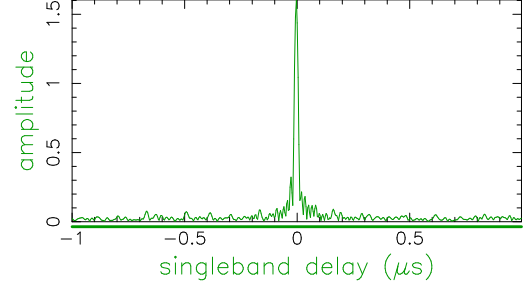
multiband delay (μ s)



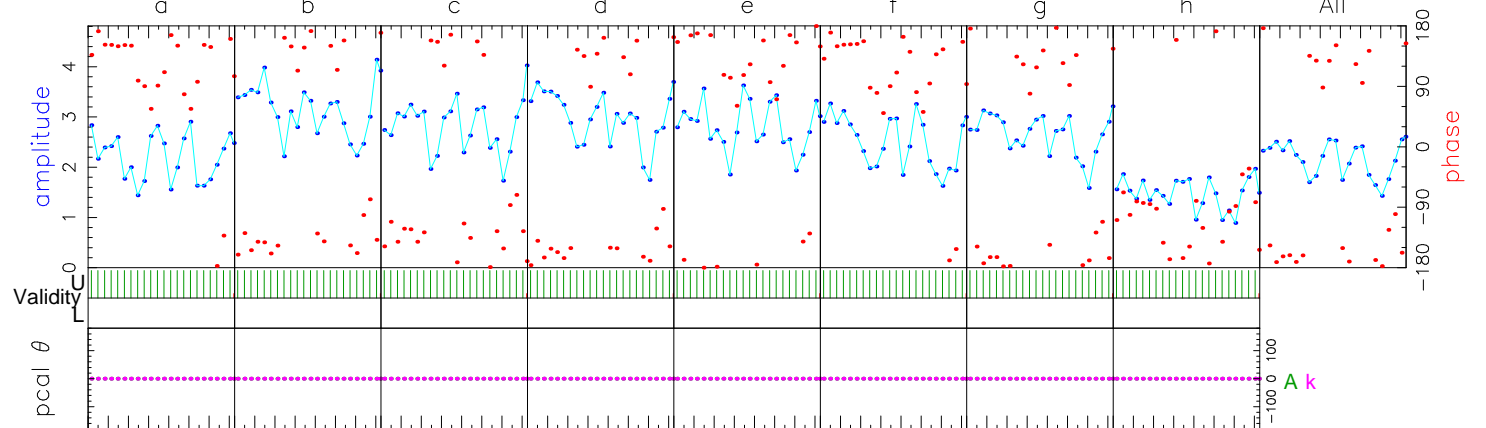
Fringe quality 2

SNR 89.9
 Int time 419.824
 Amp 1.605
 Phase 174.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.004209
 MBD -0.004559
 Fringe rate (Hz) 0.009581
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142648
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	131.7	-164.4	-150.7	-175.9	150.1	129.5	169.3	-112.2	Phase	174.1
	1.6	2.4	2.1	2.3	2.1	1.9	2.0	1.0	Ampl.	1.9
	257.8	255.8	255.4	255.6	256.0	255.8	256.3	258.4	Sbd box	255.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
k	0	0	0	0	0	0	0	0	PC freqs	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:k	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
k	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.02762042626E+03		Apriori delay (usec)		-3.02761586720E+03		Resid mbdelay (usec)		-4.55906E-03	+/- 1.2E-05
Sband delay (usec)	-3.02762007570E+03		Apriori clock (usec)		-2.1079001E+03		Resid sbdelay (usec)		-4.20850E-03	+/- 9.6E-05
Phase delay (usec)	-3.02761586159E+03		Apriori clockrate (us/s)		-3.3000000E-07		Resid phdelay (usec)		5.61314E-06	+/- 4.1E-08
Delay rate (us/s)	-8.73492064092E-01		Apriori rate (us/s)		-8.73492175322E-01		Resid rate (us/s)		1.1230E-07	+/- 1.7E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.05800336285E-05		Resid phase (deg)		174.1	+/- 1.3

ph/seg (deg) 43.1 3.1 Search (2048X32) 1.583 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 40.0 5.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.0 1.8 Inc. seg. avg. 2.148 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 31.1 3.1 Inc. frq. avg. 1.914 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 k: az 96.5 el 49.9 pa -63.8 u,v (fr/asec) 5287.280 -8545.663 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ak..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ak.W.68.21EBC1 simultaneous interpolator

Mk4/DiFX fourfit 3.23 rev 3383

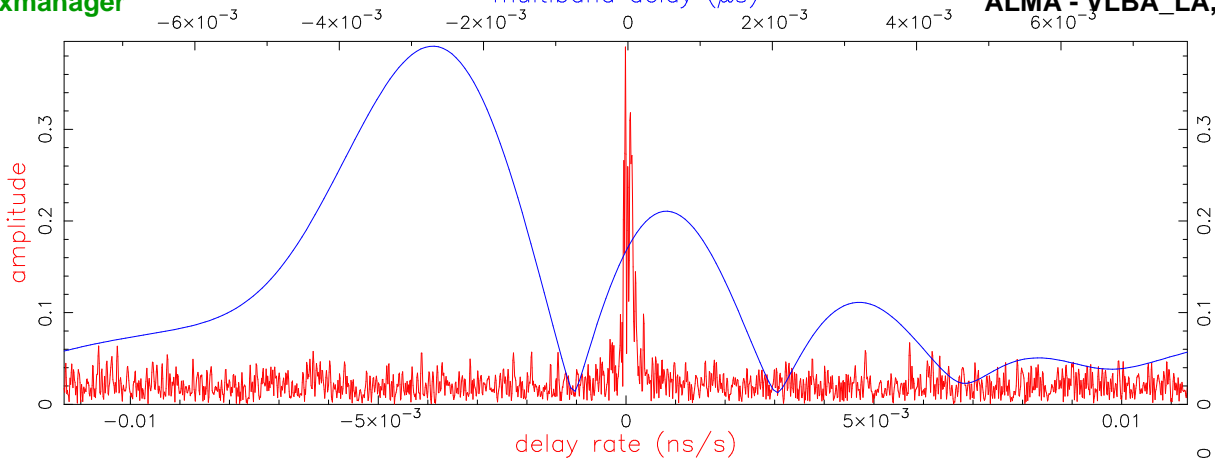
fxmanager

OJ287.21EBC1, No0042, AI

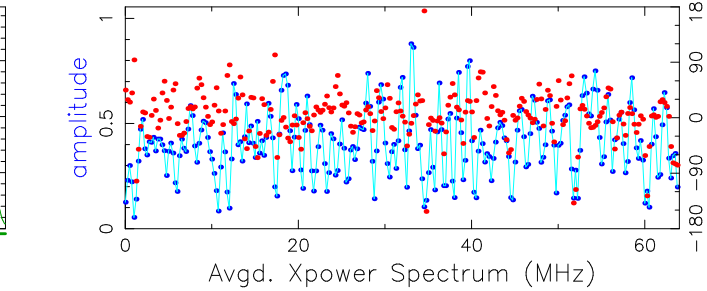
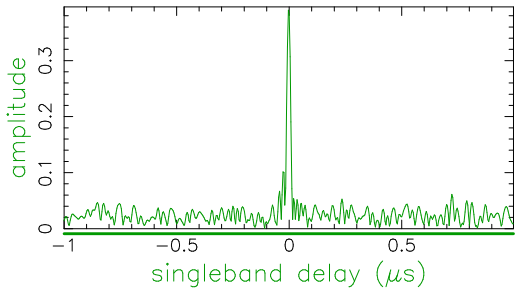
ALMA - VLBA_LA, fgroup W, pol YR

multiband delay (μ s)

Fringe quality 8

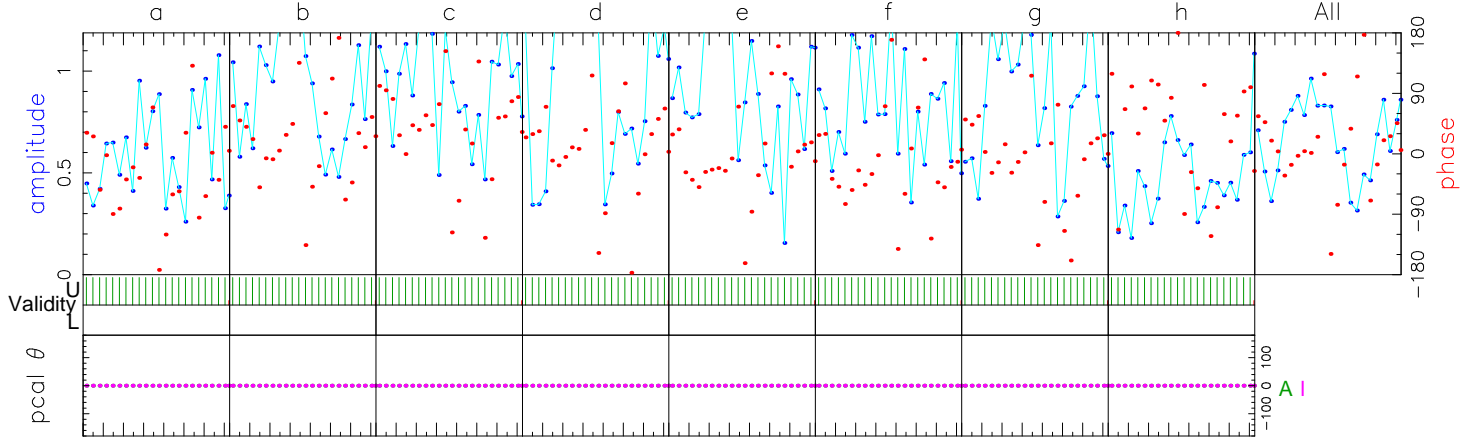


SNR 22.2
 Int time 419.823
 Amp 0.396
 Phase 9.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.002351
 MBD -0.002620
 Fringe rate (Hz)
 -0.001013
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142640
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-35.4	20.2	55.3	25.9	-13.0	-29.9	-0.6	70.1	Phase	9.6
	0.3	0.5	0.6	0.6	0.6	0.4	0.5	0.2	Ampl.	0.5
	258.1	255.6	256.1	256.1	256.5	256.6	256.9	259.1	Sbd box	256.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
I	0	0	0	0	0	0	0	0	PC freqs	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.83476651202E+03		Apriori delay (usec)		-3.83476389241E+03		Resid mbdelay (usec)		-2.61960E-03	+/- 4.9E-05
Sband delay (usec)	-3.83476624316E+03		Apriori clock (usec)		-2.1049626E+03		Resid sbdelay (usec)		-2.35075E-03	+/- 3.9E-04
Phase delay (usec)	-3.83476389210E+03		Apriori clockrate (us/s)		-4.3999987E-08		Resid phdelay (usec)		3.08291E-07	+/- 1.7E-07
Delay rate (us/s)	-7.51509039269E-01		Apriori rate (us/s)		-7.51509027505E-01		Resid rate (us/s)		-1.17635E-08	+/- 6.9E-10
Total phase (deg)			Apriori accel (us/s/s)		-2.84094855375E-05		Resid phase (deg)		9.6	+/- 5.2

ph/seg (deg) 67.2 12.4 Search (2048X32) 0.385 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 81.7 21.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 41.5 7.3 Inc. seg. avg. 0.647 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 37.6 12.7 Inc. frq. avg. 0.452 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 A: az 358.7 el 46.9 pa 178.8 I: az 105.4 el 53.6 pa -56.1 u,v (fr/asec) 4547.973 -8940.133 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/AI..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/AI.W.25.21EBC1

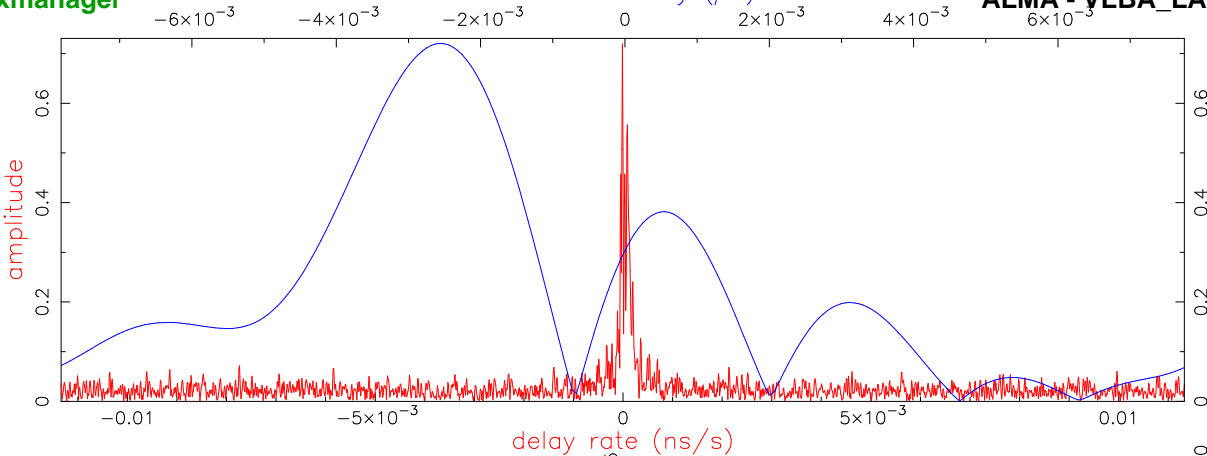
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, AI

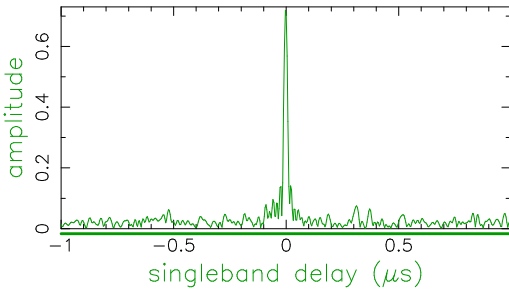
ALMA - VLBA_LA, fgroup W, pol XR

multiband delay (μ s)

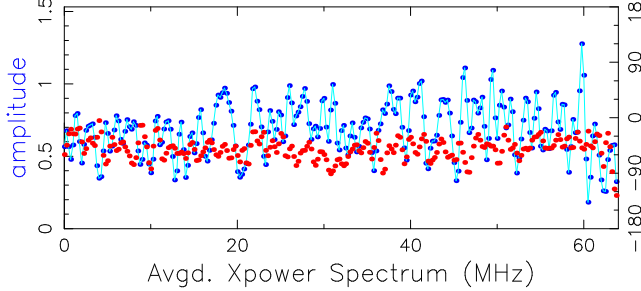


Fringe quality 4

SNR 40.9
 Int time 419.771
 Amp 0.731
 Phase -48.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.002318
 MBD -0.002484
 Fringe rate (Hz)
 -0.000985
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

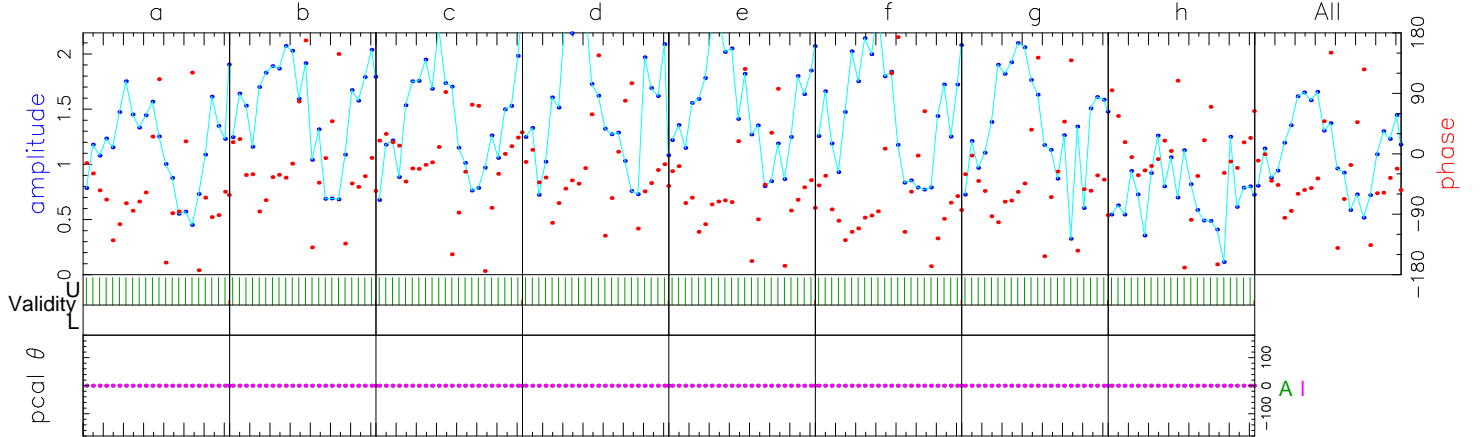


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142644
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-74.0	-33.0	-4.0	-36.6	-69.3	-89.8	-56.0	2.9	Phase	-48.2
	0.7	0.9	0.9	1.0	0.9	0.9	0.8	0.4	Ampl.	0.8
	258.1	256.2	255.9	256.0	256.4	256.6	256.9	258.6	Sbd box	256.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
I	0	0	0	0	0	0	0	0	PC freqs	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
I	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.83476637592E+03		Apriori delay (usec)		-3.83476389241E+03		Resid mbdelay (usec)		-2.48351E-03	+/- 2.7E-05
Sband delay (usec)	-3.83476621041E+03		Apriori clock (usec)		-2.1049626E+03		Resid sbdelay (usec)		-2.31800E-03	+/- 2.1E-04
Phase delay (usec)	-3.83476389397E+03		Apriori clockrate (us/s)		-4.3999987E-08		Resid phdelay (usec)		-1.55410E-06	+/- 9.0E-08
Delay rate (us/s)	-7.51509038944E-01		Apriori rate (us/s)		-7.51509027505E-01		Resid rate (us/s)		-1.14382E-08	+/- 3.7E-10
Total phase (deg)			Apriori accel (us/s/s)		-2.84094855375E-05		Resid phase (deg)		-48.2	+/- 2.8

ph/seg (deg) 67.4 6.7 Search (2048X32) 0.717 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 72.5 11.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 36.1 4.0 Inc. seg. avg. 1.130 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.2 6.9 Inc. frq. avg. 0.820 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 I: az 105.4 el 53.6 pa -56.1 u,v (fr/asec) 4547.973 -8940.133 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/AI..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/AI.W.46.21EBC1 simultaneous interpolator

Mk4/DiFX fourfit 3.23 rev 3383

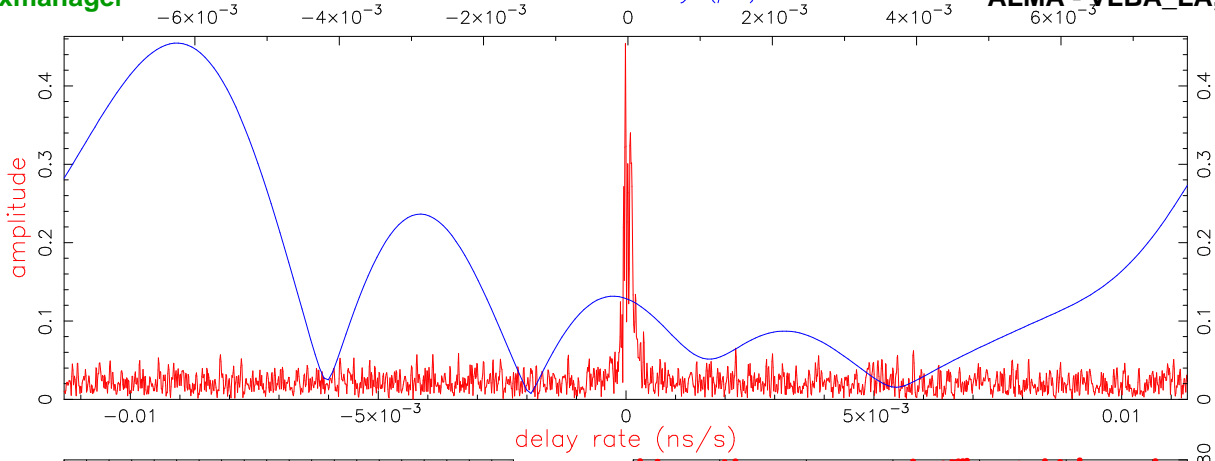
fxmanager

OJ287.21EBC1, No0042, AI

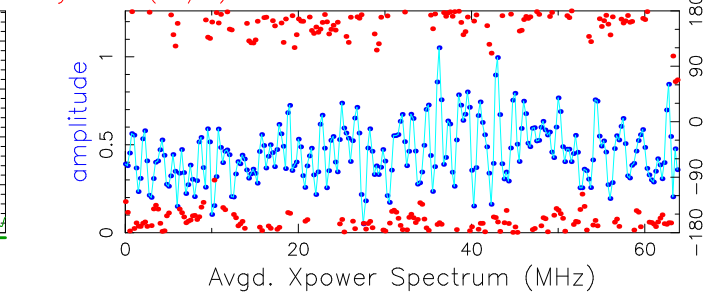
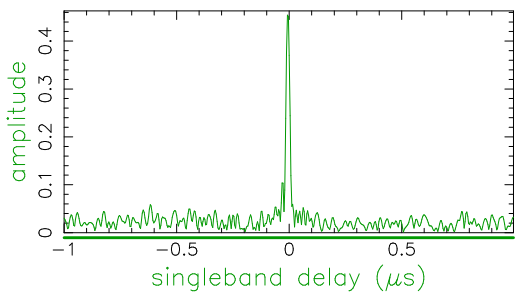
ALMA - VLBA_LA, fgroup W, pol YL

multiband delay (μ s)

Fringe quality 5

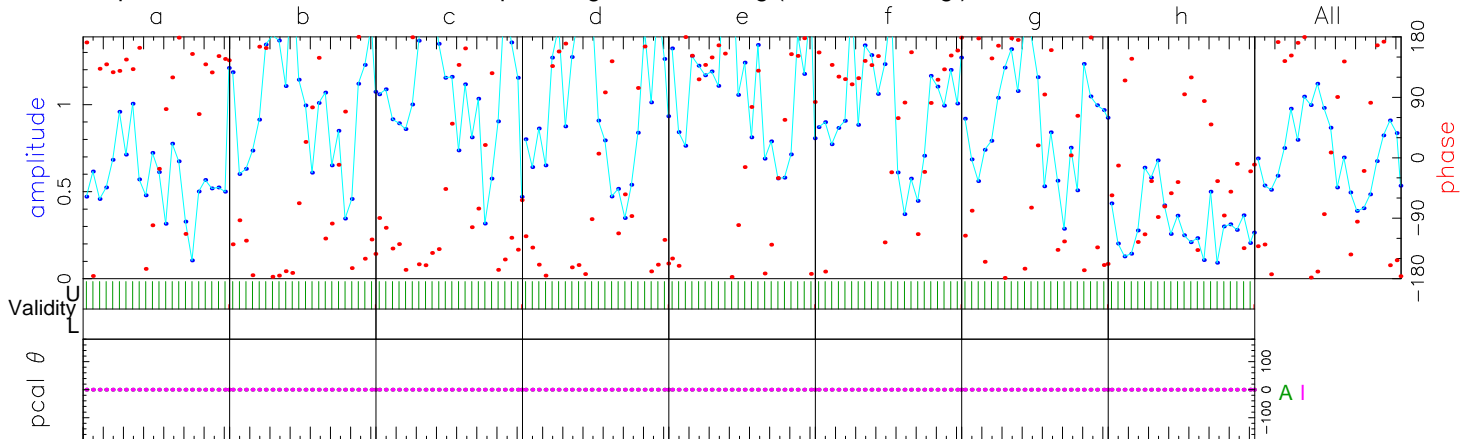


SNR 26.0
 Int time 419.823
 Amp 0.463
 Phase -175.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.006014
 MBD -0.006178
 Fringe rate (Hz)
 -0.001031
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142647
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0		
I	0	0	0	0	0	0	0	0		
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
I	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY		
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -3.83477007086E+03 Apriori delay (usec) -3.83476389241E+03 Resid mbdelay (usec) -6.17845E-03 +/- 4.2E-05
 Sband delay (usec) -3.83476990666E+03 Apriori clock (usec) -2.1049626E+03 Resid sbdelay (usec) -6.01425E-03 +/- 3.3E-04
 Phase delay (usec) -3.83476389806E+03 Apriori clockrate (us/s) -4.3999987E-08 Resid phdelay (usec) -5.65207E-06 +/- 1.4E-07
 Delay rate (us/s) -7.51509039474E-01 Apriori rate (us/s) -7.51509027505E-01 Resid rate (us/s) -1.19690E-08 +/- 5.9E-10
 Total phase (deg) -64.5 Apriori accel (us/s/s) -2.84094855375E-05 Resid phase (deg) -175.3 +/- 4.4

ph/seg (deg) 67.5 10.6 Search (2048X32) 0.453 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 74.0 18.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 55.6 6.2 Inc. seg. avg. 0.718 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 42.4 10.9 Inc. frq. avg. 0.542 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

A: az 358.7 el 46.9 pa 178.8 I: az 105.4 el 53.6 pa -56.1 u,v (fr/asec) 4547.973 -8940.133 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/AI..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/AI.W.66.21EBC1

Mk4/DiFX fourfit 3.23 rev 3383

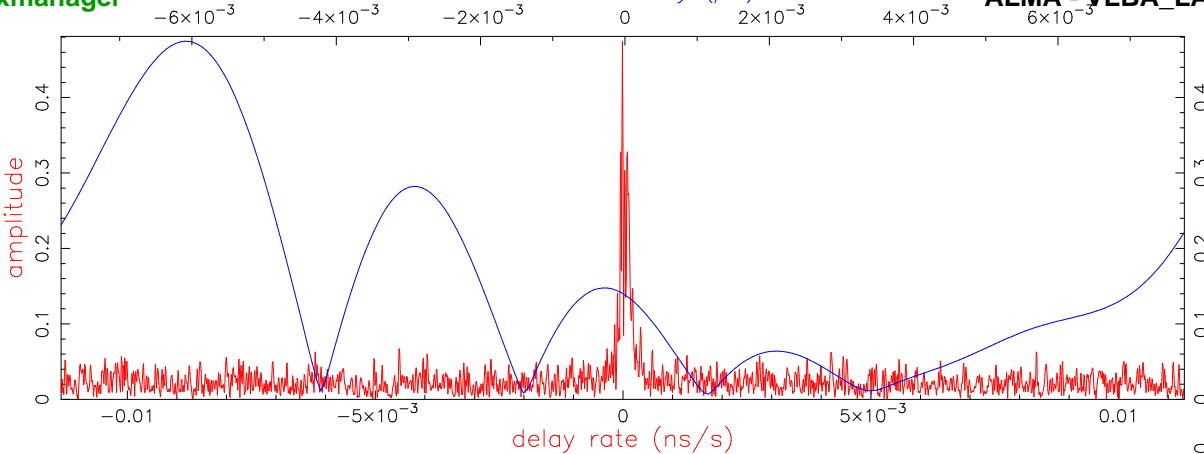
fxmanager

OJ287.21EBC1, No0042, AI

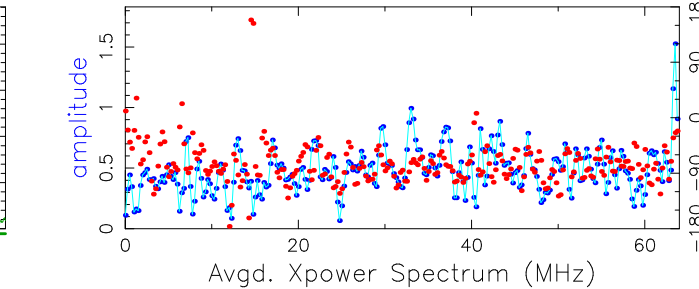
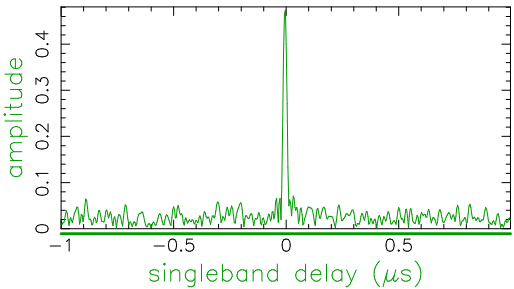
ALMA - VLBA_LA, fgroup W, pol XL

multiband delay (μ s)

Fringe quality 6

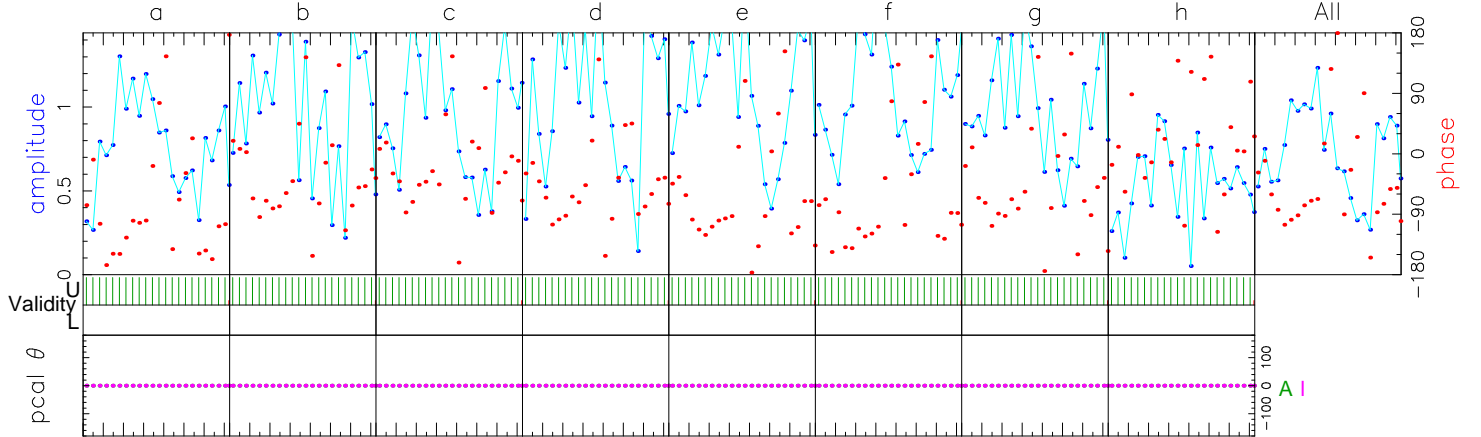


SNR 27.0
 Int time 419.771
 Amp 0.481
 Phase -70.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.005448
 MBD -0.006134
 Fringe rate (Hz)
 -0.000988
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Yr:day 16383
 Start 2021:115
 Stop 2021:115
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142636
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-115.8	-51.9	-30.8	-61.3	-97.1	-107.2	-65.3	9.7	Phase	-70.1
	0.5	0.7	0.6	0.7	0.6	0.6	0.6	0.3	Ampl.	0.6
	257.2	255.3	255.0	255.2	255.5	255.9	255.8	256.1	Sbd box	255.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
I	0	0	0	0	0	0	0	0	PC freqs	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:I	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
I	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
I	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.83477002661E+03		Apriori delay (usec)		-3.83476389241E+03		Resid mbdelay (usec)		-6.13420E-03	+/- 4.0E-05
Sband delay (usec)	-3.83476934016E+03		Apriori clock (usec)		-2.1049626E+03		Resid sbdelay (usec)		-5.44775E-03	+/- 3.2E-04
Phase delay (usec)	-3.83476389467E+03		Apriori clockrate (us/s)		-4.3999987E-08		Resid phdelay (usec)		-2.26121E-06	+/- 1.4E-07
Delay rate (us/s)	-7.51509038970E-01		Apriori rate (us/s)		-7.51509027505E-01		Resid rate (us/s)		-1.14645E-08	+/- 5.7E-10
Total phase (deg)			Apriori accel (us/s/s)		-2.84094855375E-05		Resid phase (deg)		-70.1	+/- 4.3

ph/seg (deg) 67.2 10.2 Search (2048X32) 0.467 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 75.7 17.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.7 6.0 Inc. seg. avg. 0.730 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.4 10.5 Inc. frq. avg. 0.563 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 I: az 105.4 el 53.6 pa -56.1 u,v (fr/asec) 4547.973 -8940.133 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/AI..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/AI.W.8.21EBC1 simultaneous interpolator

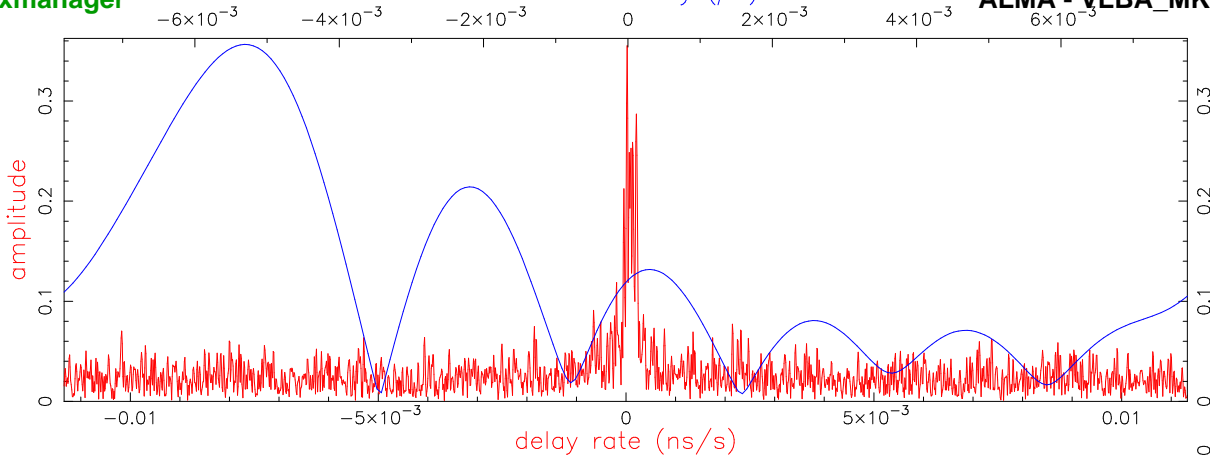
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Am

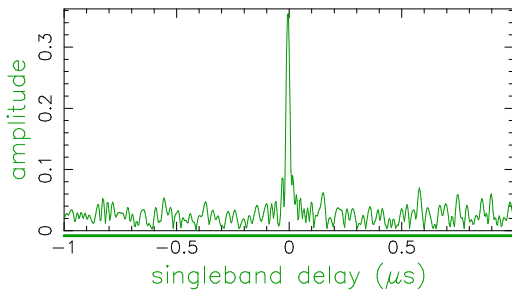
ALMA - VLBA_MK, fgroup W, pol YR

multiband delay (μ s)

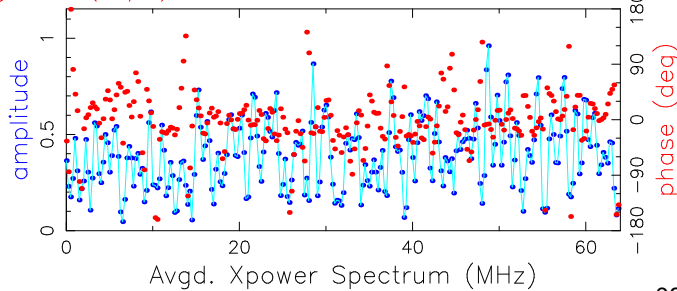


Fringe quality 8

SNR 19.0
 Int time 367.368
 Amp 0.363
 Phase -5.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.005717
 MBD -0.005418
 Fringe rate (Hz)
 0.002347
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

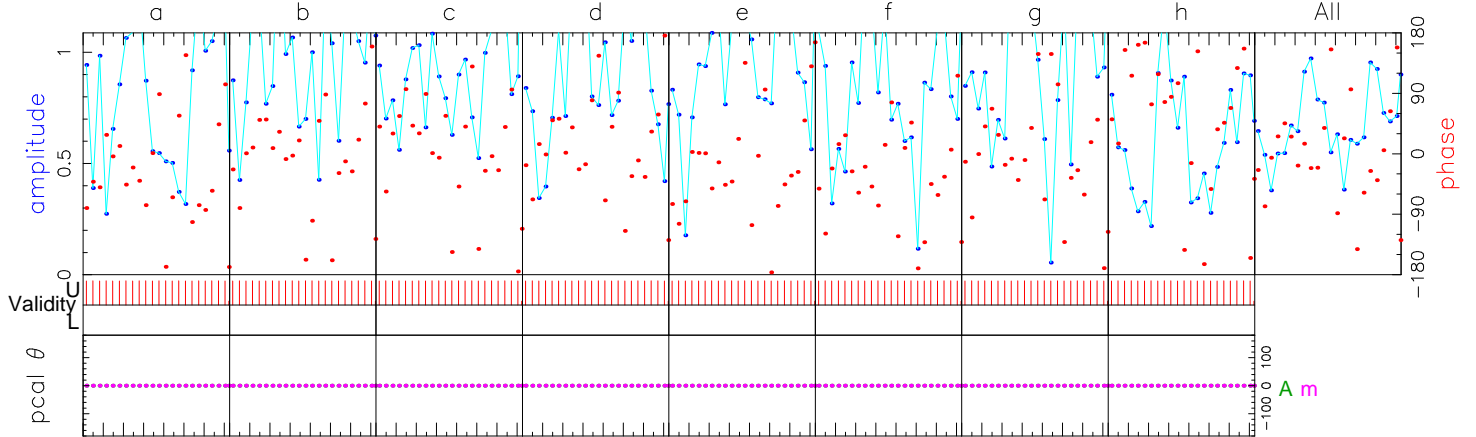


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142640
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-39.8	14.6	25.6	1.4	-30.2	-35.3	-11.5	108.9		-5.3
	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.3		0.4
	257.8	255.2	255.1	255.3	255.5	255.7	256.2	258.2	Sbd box	255.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
A:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	9.56737443241E+03		Apriori delay (usec)		9.56737985033E+03		Resid mbdelay (usec)		-5.41792E-03	+/- 5.7E-05
Sband delay (usec)	9.56737413308E+03		Apriori clock (usec)		-2.1232720E+03		Resid sbdelay (usec)		-5.71725E-03	+/- 4.5E-04
Phase delay (usec)	9.56737985016E+03		Apriori clockrate (us/s)		-6.4799999E-07		Resid phdelay (usec)		-1.71488E-07	+/- 1.9E-07
Delay rate (us/s)	-1.41685926476E+00		Apriori rate (us/s)		-1.41685929201E+00		Resid rate (us/s)		2.72490E-08	+/- 8.0E-10
Total phase (deg)	105.4		Apriori accel (us/s/s)		-9.02852519796E-05		Resid phase (deg)		-5.3	+/- 6.0

ph/seg (deg) 71.7 14.5 Search (2048X32) 0.343 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 97.0 25.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 53.5 8.5 Inc. seg. avg. 0.654 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 27.4 14.9 Inc. frq. avg. 0.439 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 m: az 72.0 el 9.5 pa -72.2 u,v (fr/asec) 8501.299 -8689.973 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Am..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Am.W.30.21EBC1 simultaneous interpolator

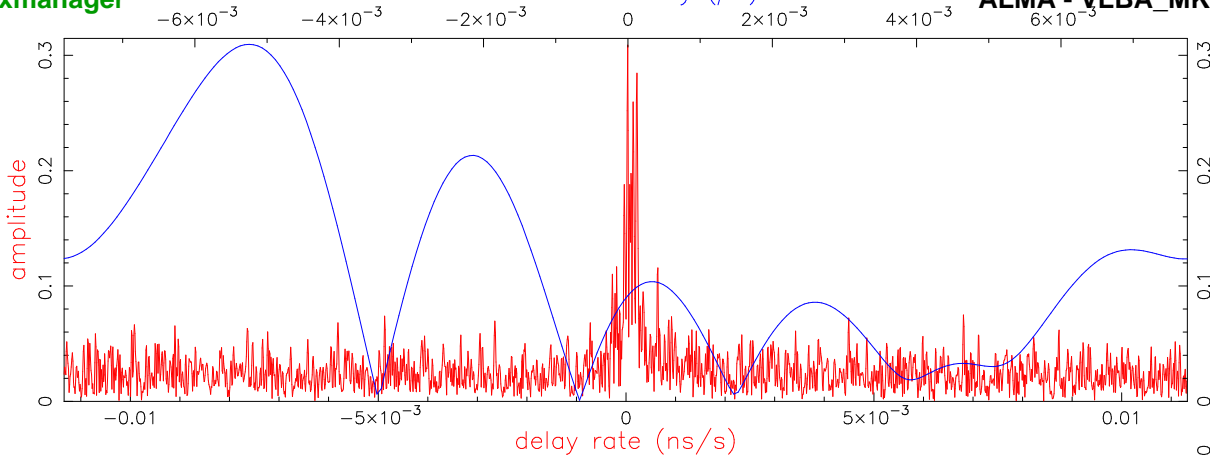
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Am

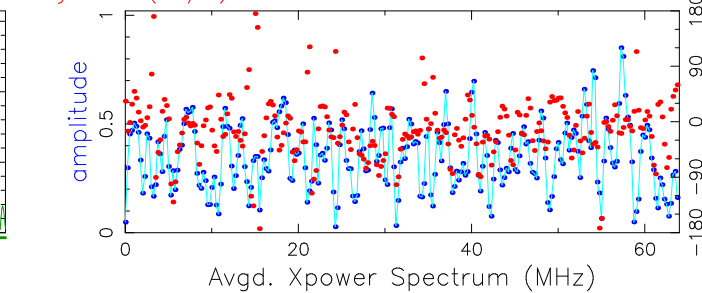
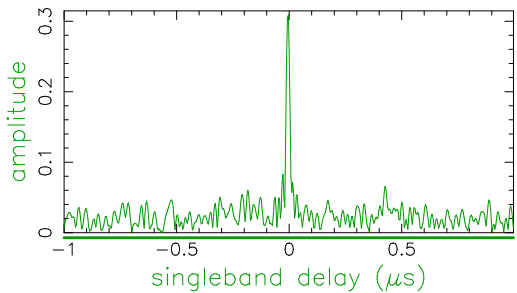
ALMA - VLBA_MK, fgroup W, pol XR

multiband delay (μ s)



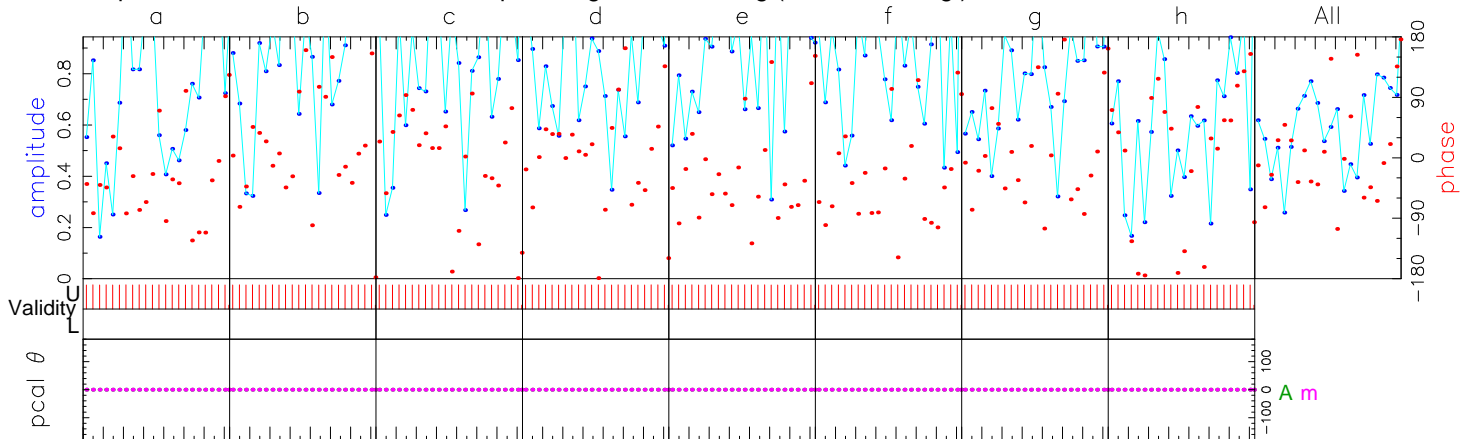
Fringe quality 8

SNR 16.5
 Int time 367.342
 Amp 0.315
 Phase -17.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.005602
 MBD -0.005336
 Fringe rate (Hz) 0.002465
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142644
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.8749285"
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-49.7	1.0	27.7	6.8	-45.5	-59.3	-22.9	87.7	Phase	-17.1
	0.4	0.4	0.4	0.4	0.5	0.4	0.3	0.3	Ampl.	0.4
	257.3	255.3	255.1	255.5	255.7	255.7	256.2	257.7	Sbd box	255.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
A:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
m	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	9.56737451423E+03		Apriori delay (usec)		9.56737985033E+03		Resid mbdelay (usec)		-5.33610E-03	+/- 6.6E-05
Sband delay (usec)	9.56737424808E+03		Apriori clock (usec)		-2.1232720E+03		Resid sbdelay (usec)		-5.60225E-03	+/- 5.2E-04
Phase delay (usec)	9.56737984978E+03		Apriori clockrate (us/s)		-6.4799999E-07		Resid phdelay (usec)		-5.50574E-03	+/- 2.2E-07
Delay rate (us/s)	-1.41685926340E+00		Apriori rate (us/s)		-1.41685929201E+00		Resid rate (us/s)		2.86116E-08	+/- 9.2E-10
Total phase (deg)	93.6		Apriori accel (us/s/s)		-9.02852519796E-05		Resid phase (deg)		-17.1	+/- 6.9

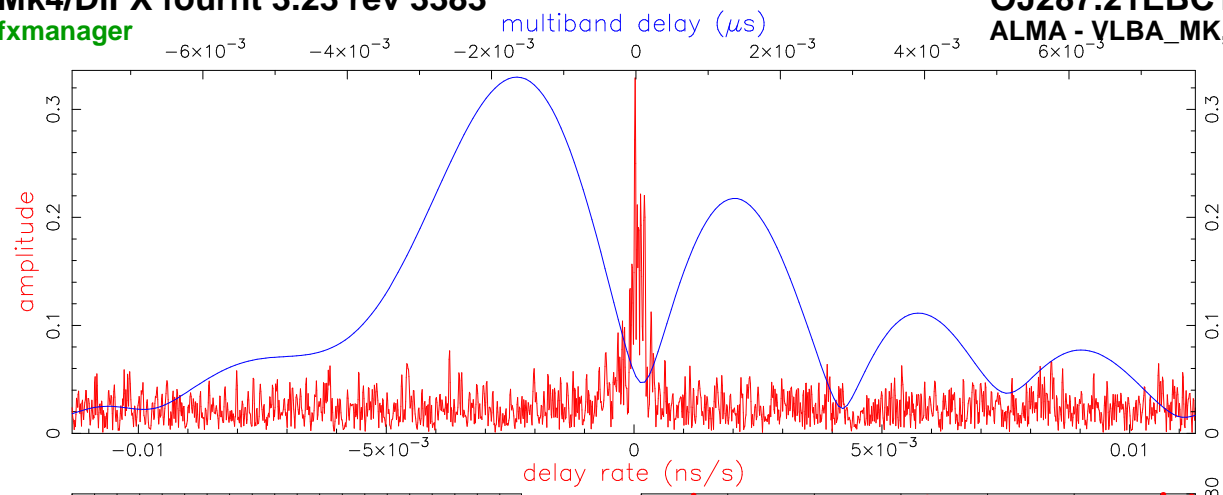
ph/seg (deg) 73.1 16.7 Search (2048X32) 0.295 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 100.5 29.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 54.1 9.8 Inc. seg. avg. 0.567 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 37.1 17.2 Inc. frq. avg. 0.399 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 m: az 72.0 el 9.5 pa -72.2 u,v (fr/asec) 8501.299 -8689.973 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Am..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Am.W.47.21EBC1 simultaneous interpolator

Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Am

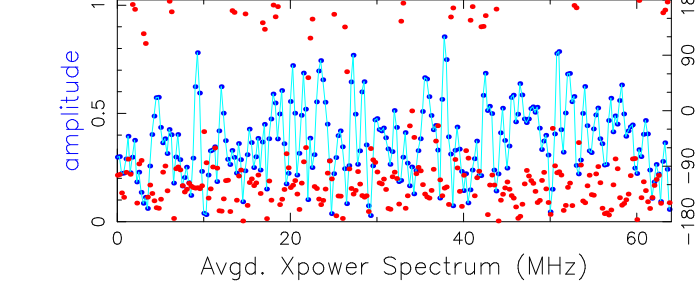
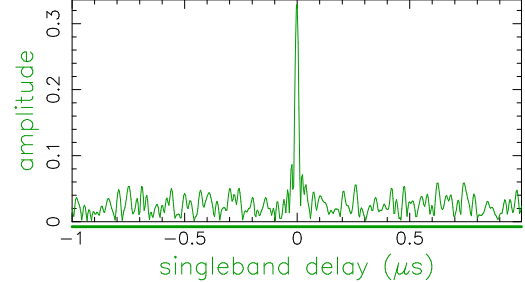
ALMA - VLBA_MK, fgroup W, pol YL



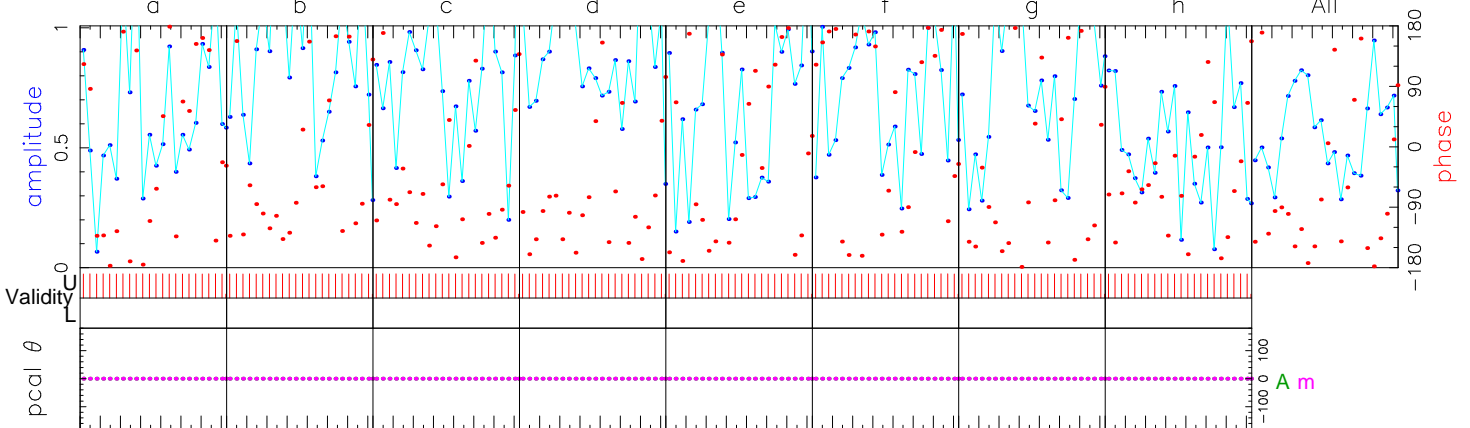
Fringe quality 8

SNR 17.6
 Int time 367.365
 Amp 0.336
 Phase -134.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.001823
 MBD -0.001734
 Fringe rate (Hz) 0.002378
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build 2022:023:120903
 2022:024:142648
 2021:298:085625
 RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0	Phase	-134.5
m	0	0	0	0	0	0	0	0	Ampl.	0.4
A:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	256.5
A:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
m	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	PC phase	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
									PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	

Group delay (usec) (SBD)	9.56737811641E+03	Apriori delay (usec)	9.56737985033E+03	Resid mbdelay (usec)	-1.73392E-03	+/-	6.2E-05
Sband delay (usec)	9.56737802708E+03	Apriori clock (usec)	-2.1232720E+03	Resid sbdelay (usec)	-1.82325E-03	+/-	4.9E-04
Phase delay (usec)	9.56737984599E+03	Apriori clockrate (us/s)	-6.4799999E-07	Resid phdelay (usec)	-4.33595E-06	+/-	2.1E-07
Delay rate (us/s)	-1.41685926440E+00	Apriori rate (us/s)	-1.41685929201E+00	Resid rate (us/s)	2.76104E-08	+/-	8.7E-10
Total phase (deg)	-23.8	Apriori accel (us/s/s)	-9.02852519796E-05	Resid phase (deg)	-134.5	+/-	6.5

ph/seg (deg)	67.3	15.6	Search (2048X32)	0.310	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	87.3	27.2	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	41.7	9.2	Inc. seg. avg.	0.551	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	31.5	16.1	Inc. frq. avg.	0.390	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00

A: az 358.7 el 46.9 pa 178.8 m: az 72.0 el 9.5 pa -72.2 u,v (fr/asec) 8501.299 -8689.973 simultaneous interpolator

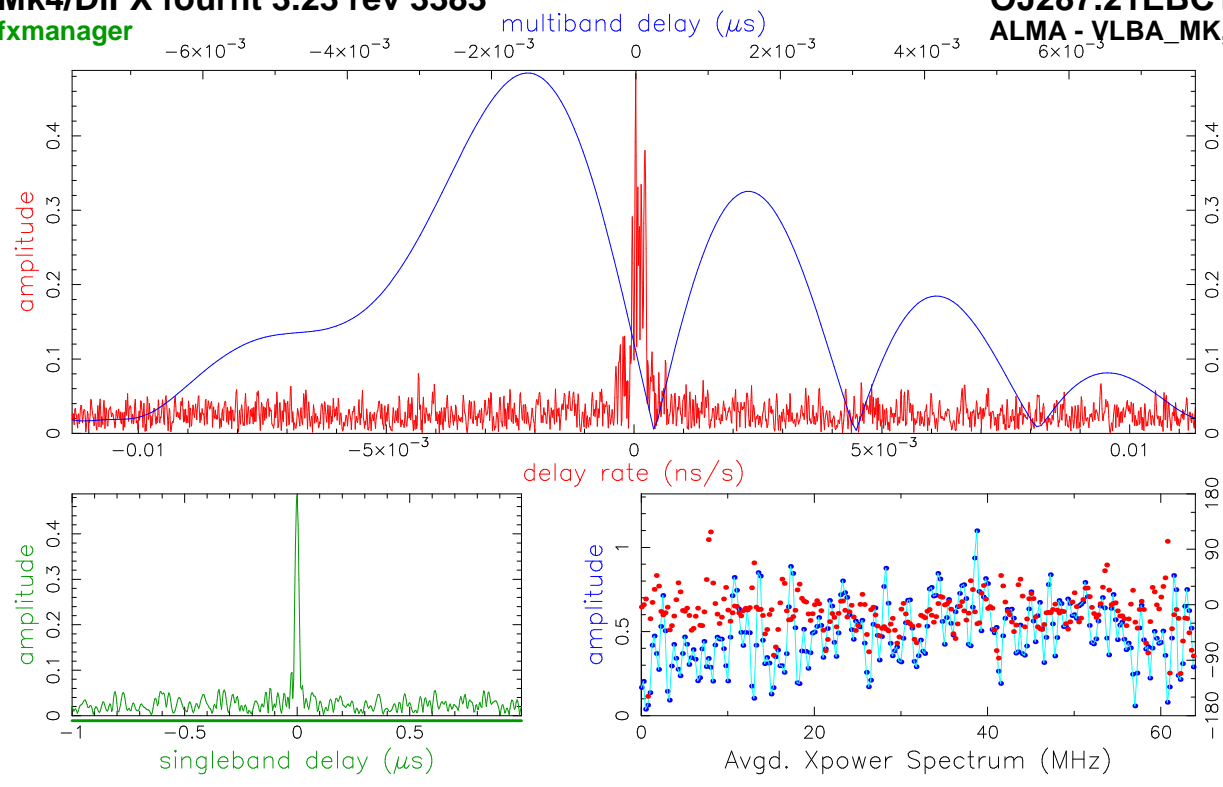
Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Am..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Am.W.67.21EBC1

Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Am

ALMA - VLBA_MK, fgroup W, pol XL

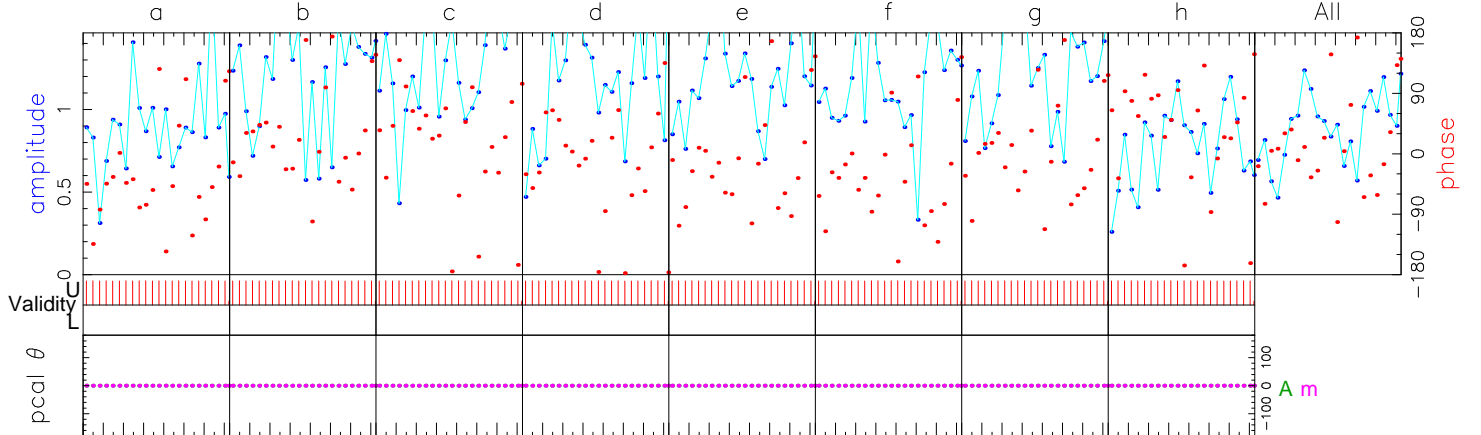


Fringe quality 6

SNR 25.6
 Int time 367.339
 Amp 0.488
 Phase -8.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.001224
 MBD -0.001569
 Fringe rate (Hz) 0.002578
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build 2022:023:120903
 2022:024:142636
 2021:298:085625
 RA & Dec (J2000) 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-56.6	7.2	36.9	5.7	-35.6	-54.2	-14.4	62.5	Phase	-8.3
	0.5	0.7	0.6	0.7	0.6	0.6	0.6	0.4	Ampl.	0.6
	258.5	257.0	256.2	256.3	256.5	256.7	256.8	258.6	Sbd box	256.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
m	0	0	0	0	0	0	0	0	PC freqs	
A:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:m	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
m	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
m	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	9.56737828158E+03		Apriori delay (usec)		9.56737985033E+03		Resid mbdelay (usec)		-1.56875E-03	+/- 4.2E-05
Sband delay (usec)	9.56737862633E+03		Apriori clock (usec)		-2.1232720E+03		Resid sbdelay (usec)		-1.22400E-03	+/- 3.4E-04
Phase delay (usec)	9.56737985006E+03		Apriori clockrate (us/s)		-6.4799999E-07		Resid phdelay (usec)		-2.67072E-07	+/- 1.4E-07
Delay rate (us/s)	-1.41685926208E+00		Apriori rate (us/s)		-1.41685929201E+00		Resid rate (us/s)		2.99323E-08	+/- 6.0E-10
Total phase (deg)	102.4		Apriori accel (us/s/s)		-9.02852519796E-05		Resid phase (deg)		-8.3	+/- 4.5
ph/seg (deg)	RMS 71.7	Theor. 10.7	Amplitude 0.488 +/- 0.019	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)		-1.000 1.000
amp/seg (%)	91.0	18.7	Search (2048X32) 0.475	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)		-0.008 0.008
ph/frq (deg)	46.0	6.3	Interp. 0.000	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 256 t_cohere infinite		dr window (ns/s)		-0.011 0.011
amp/frq (%)	30.0	11.1	Inc. seg. avg. 0.869	Data rate(Mb/s): 2048				ion window (TEC)		0.00 0.00
A: az 358.7 el 46.9 pa 178.8		m: az 72.0 el 9.5 pa -72.2		u,v (fr/asec) 8501.299 -8689.973				simultaneous interpolator		
Control file: cf_1234_gmva		Input file: /Exps/mg006b/v1/1234/No0042/Am..21EBC1		Output file: /Exps/mg006b/v1/1234/No0042/Am.W.7.21EBC1						

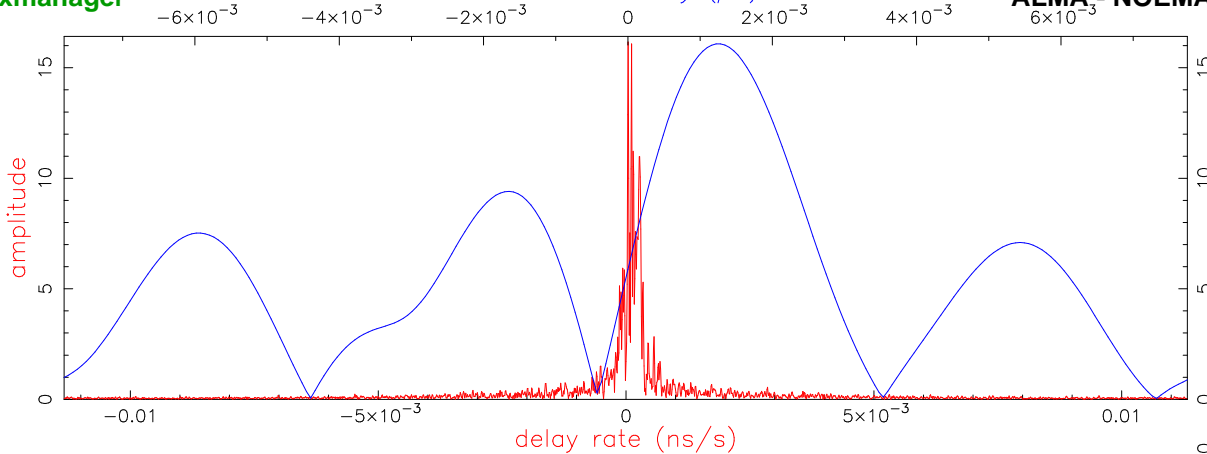
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, AN

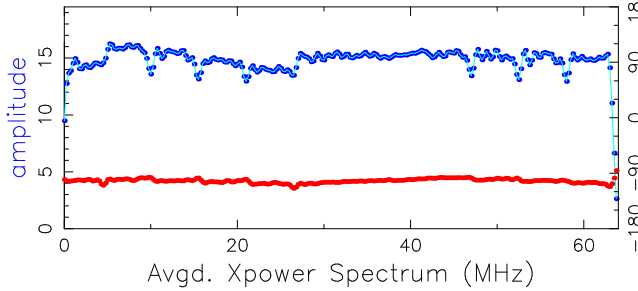
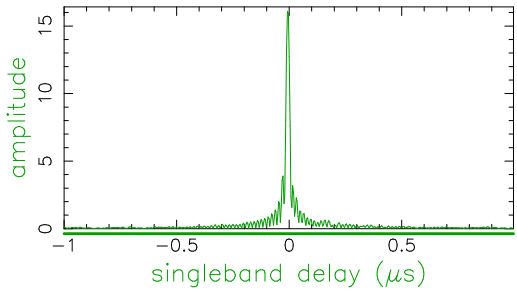
ALMA - NOEMA, fgroup W, pol XL

multiband delay (μs)



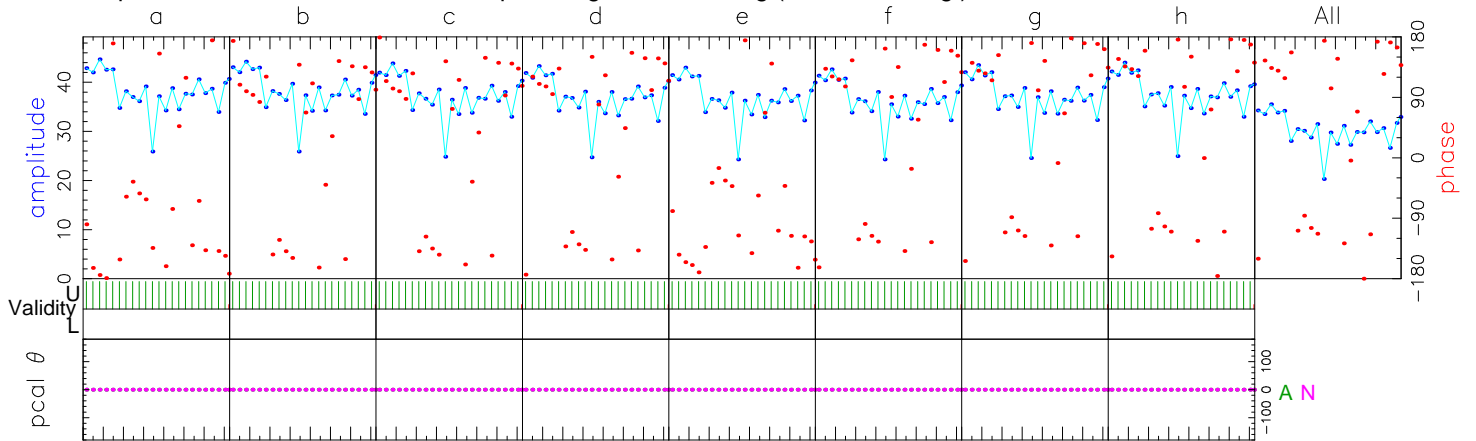
Fringe quality 2

SNR 919.9
 Int time 419.775
 Amp 16.420
 Phase 173.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.006051
 MBD 0.001259
 Fringe rate (Hz) 0.009208
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142638
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-136.1	137.1	142.0	149.2	-116.0	161.0	170.1	176.1	Phase	173.2
	20.3	20.1	19.8	19.6	19.5	19.3	19.6	19.9	Ampl.	19.8
	255.3	255.2	255.5	255.5	255.7	255.8	255.5	255.3	Sbd box	255.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	4.86541666062E+03		Apriori delay (usec)		4.86541540206E+03		Resid mbdelay (usec)		1.25856E-03	+/- 1.2E-06
Sband delay (usec)	4.86540935081E+03		Apriori clock (usec)		-2.0942253E+03		Resid sbdelay (usec)		-6.05125E-03	+/- 9.4E-06
Phase delay (usec)	4.86541540764E+03		Apriori clockrate (us/s)		-2.0000000E-07		Resid phdelay (usec)		5.58367E-06	+/- 4.0E-09
Delay rate (us/s)	9.59155755116E-01		Apriori rate (us/s)		9.59155648218E-01		Resid rate (us/s)		1.06898E-07	+/- 1.7E-11
Total phase (deg)	77.2		Apriori accel (us/s/s)		-7.91785225848E-05		Resid phase (deg)		173.2	+/- 0.1

ph/seg (deg) 66.1 0.3 Theor. Amplitude 16.420 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 86.9 0.5 Search (2048X32) 14.928 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.0 0.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 20.4 0.3 Inc. seg. avg. 30.329 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 19.761 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 A: az 358.7 el 46.9 pa 178.8 N: az 274.3 el 24.7 pa 49.0 u,v (fr/asec) -5958.192 -11323.226 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/AN..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/AN.W.19.21EBC1

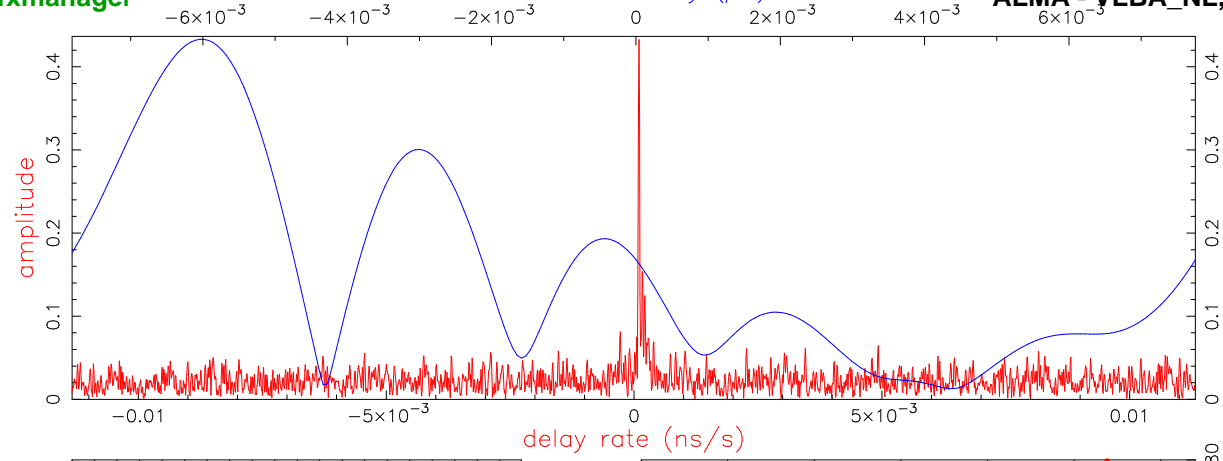
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, An

ALMA - VLBA_NL, fgroup W, pol YR

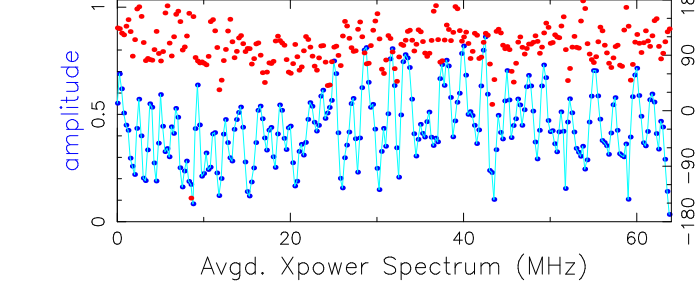
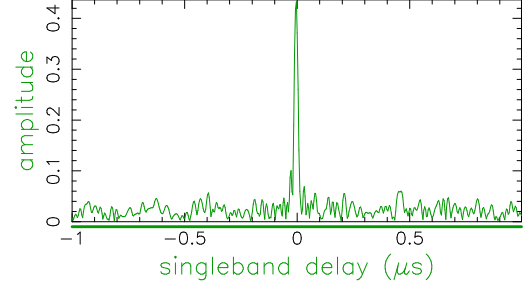
multiband delay (μ s)



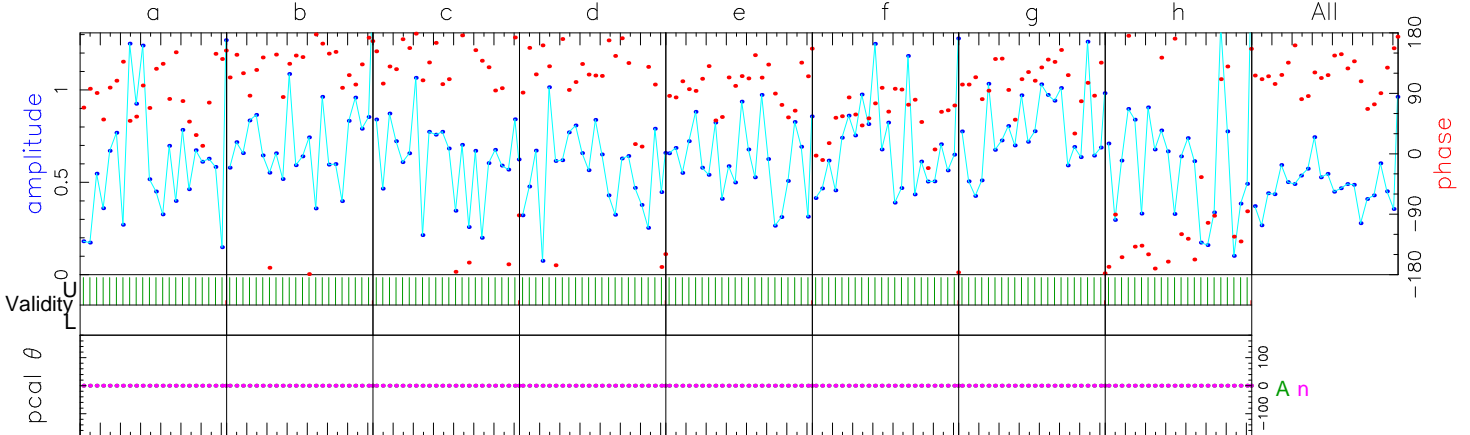
Fringe quality 7

SNR 24.5
Int time 419.821
Amp 0.437
Phase 117.0
PFD 0.0e+00
Delays (us)
SBD -0.005131
MBD -0.006078
Fringe rate (Hz) 0.008431
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. mg006b
Exper # 16383
Yr:day 2021:115
Start 231500.00
Stop 232159.84
FRT 231830.00
Corr/FF/build 2022:023:120903
2022:024:142640
2021:298:085625
RA & Dec (J2000) 08h54m48.874928s
+20°06'30.640850"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec) (SBD)	-5.23468482706E+03				-5.23467874955E+03					
Sband delay (usec)	-5.23468388105E+03				-2.1130354E+03					
Phase delay (usec)	-5.23467874577E+03				-6.2999996E-07					
Delay rate (us/s)	-4.51834289962E-01				-4.51834387840E-01					
Total phase (deg)			-58.0							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode:	MANUAL	MANUAL								
Pcal rate:	0.000E+00	0.000E+00								
Bits/sample:	2x2									
Data rate(MSamp/s):	128 MBpts	32 Amb	0.016 us							
Data rate(Mb/s):	2048									
nlags:	256	t_cohere	infinite							
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								
simultaneous interpolator										

ph/seg (deg) 25.7 11.2 Search (2048X32) 0.424 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 27.6 19.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.9 6.6 Inc. seg. avg. 0.470 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 30.5 11.6 Inc. frq. avg. 0.534 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 n: az 131.3 el 60.9 pa -36.0 u,v (fr/asec) 2729.284 -9486.478 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/An..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/An.W.29.21EBC1

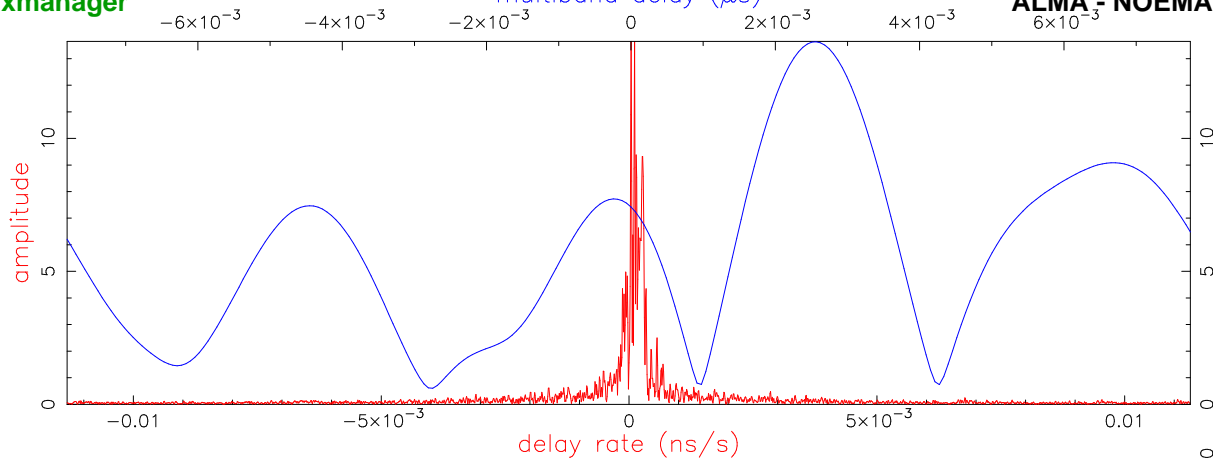
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, AN

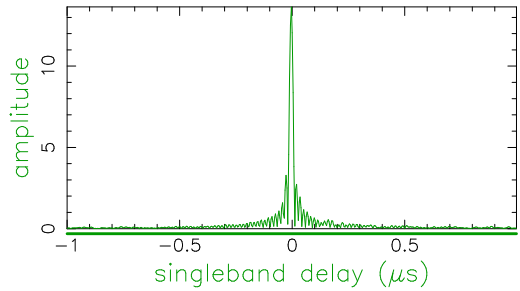
ALMA - NOEMA, fgroup W, pol YR

multiband delay (μ s)

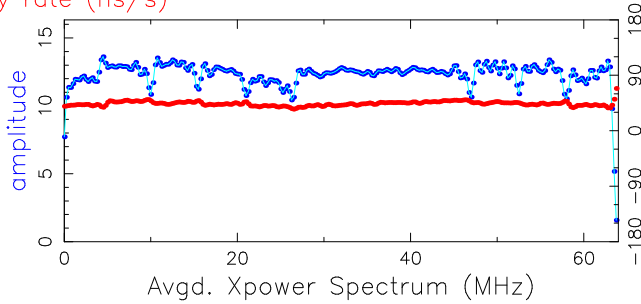


Fringe quality 2

SNR 703.1
 Int time 354.932
 Amp 13.648
 Phase -34.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.004272
 MBD 0.002550
 Fringe rate (Hz)
 0.009246
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

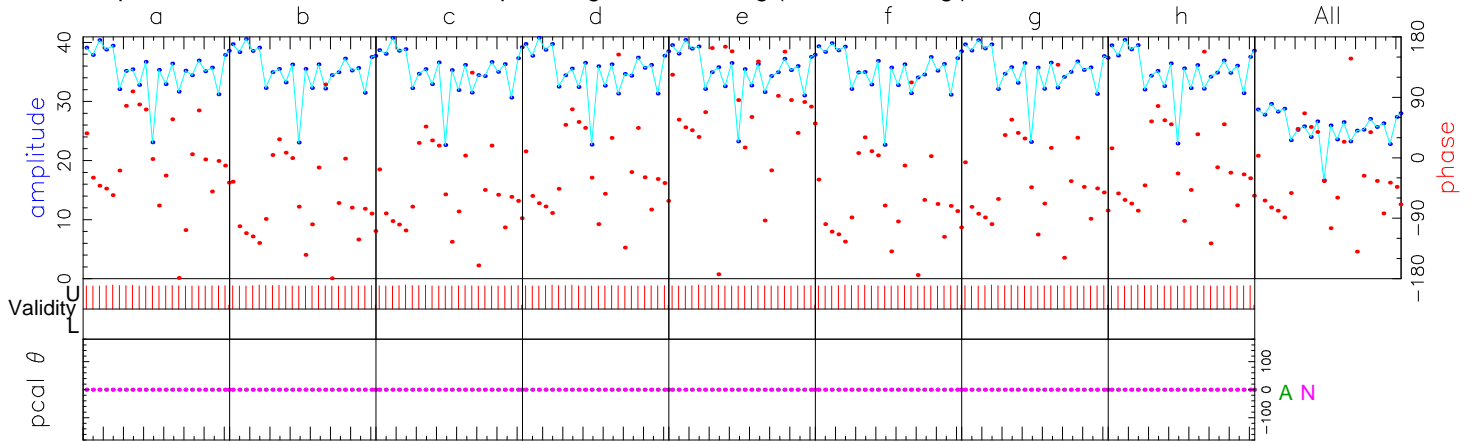


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142642
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-1.9	-73.5	-55.1	-28.9	85.4	-70.0	-43.6	-23.1		Phase
	18.6	18.7	18.6	18.8	18.8	18.8	18.7	18.7		Ampl.
	255.8	255.8	255.9	256.0	256.3	256.2	256.0	255.9		Sbd box
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
A	0	0	0	0	0	0	0	0		PC freqs
N	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
A	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
N	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY		Chan ids
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Tracks
Group delay (usec) (SBD)	4.86541795225E+03		Apriori delay (usec)		4.86541540206E+03		Resid mbdelay (usec)		2.55019E-03	+/- 1.5E-06
Sband delay (usec)	4.86541113031E+03		Apriori clock (usec)		-2.0942253E+03		Resid sbdelay (usec)		-4.27175E-03	+/- 1.2E-05
Phase delay (usec)	4.86541540094E+03		Apriori clockrate (us/s)		-2.0000000E-07		Resid phdelay (usec)		-1.11833E-06	+/- 5.3E-09
Delay rate (us/s)	9.5915575553E-01		Apriori rate (us/s)		9.59155648218E-01		Resid rate (us/s)		1.07335E-07	+/- 2.2E-11
Total phase (deg)	229.3		Apriori accel (us/s/s)		-7.91785225848E-05		Resid phase (deg)		-34.7	+/- 0.2

ph/seg (deg) 66.1 0.4
 amp/seg (%) 90.1 0.7
 ph/frq (deg) 56.1 0.2
 amp/frq (%) 37.1 0.4

RMS Theor. Amplitude 13.648 +/- 0.019
 Search (2048X32) 13.043
 Interp. 0.000
 Inc. seg. avg. 25.641
 Inc. frq. avg. 18.704

Group delay (usec) (SBD) 4.86541795225E+03
 Sband delay (usec) 4.86541113031E+03
 Phase delay (usec) 4.86541540094E+03
 Delay rate (us/s) 9.5915575553E-01
 Total phase (deg) 229.3

Apriori delay (usec) 4.86541540206E+03
 Apriori clock (usec) -2.0942253E+03
 Apriori clockrate (us/s) -2.0000000E-07
 Apriori rate (us/s) 9.59155648218E-01
 Apriori accel (us/s/s) -7.91785225848E-05

Resid mbdelay (usec) 2.55019E-03
 Resid sbdelay (usec) -4.27175E-03
 Resid phdelay (usec) -1.11833E-06
 Resid rate (us/s) 1.07335E-07
 Resid phase (deg) -34.7

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 PCal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite

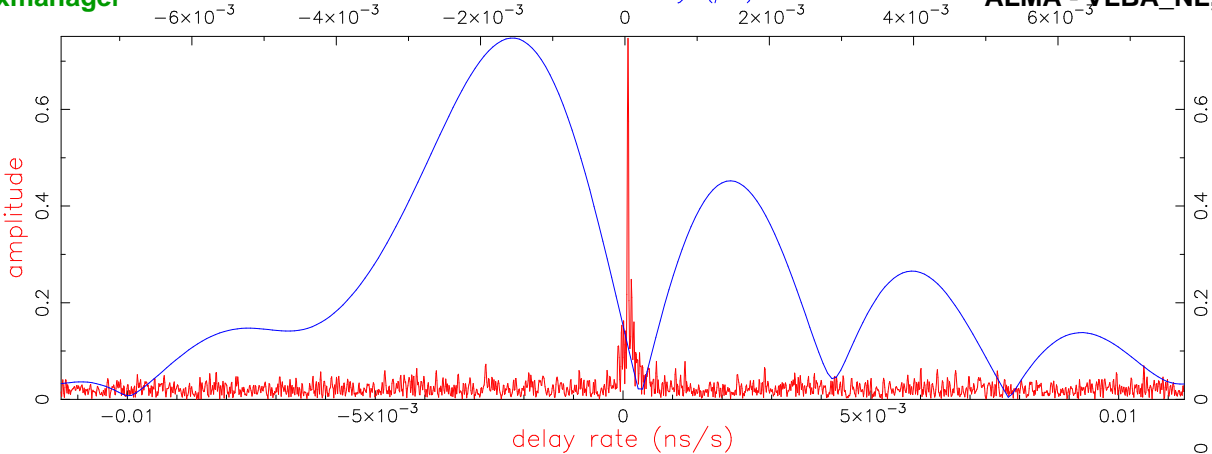
sb window (us) -1.000 1.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

simultaneous interpolator

A: az 358.7 el 46.9 pa 178.8 N: az 274.3 el 24.7 pa 49.0 u,v (fr/asec) -5958.192 -11323.226

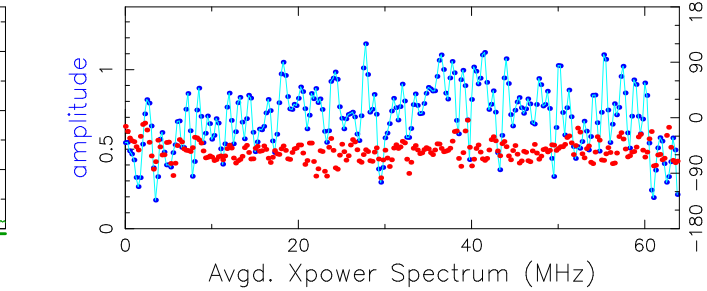
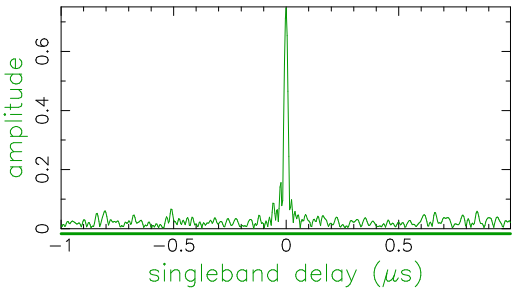
Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/AN..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/AN.W.39.21EBC1

multiband delay (μ s)



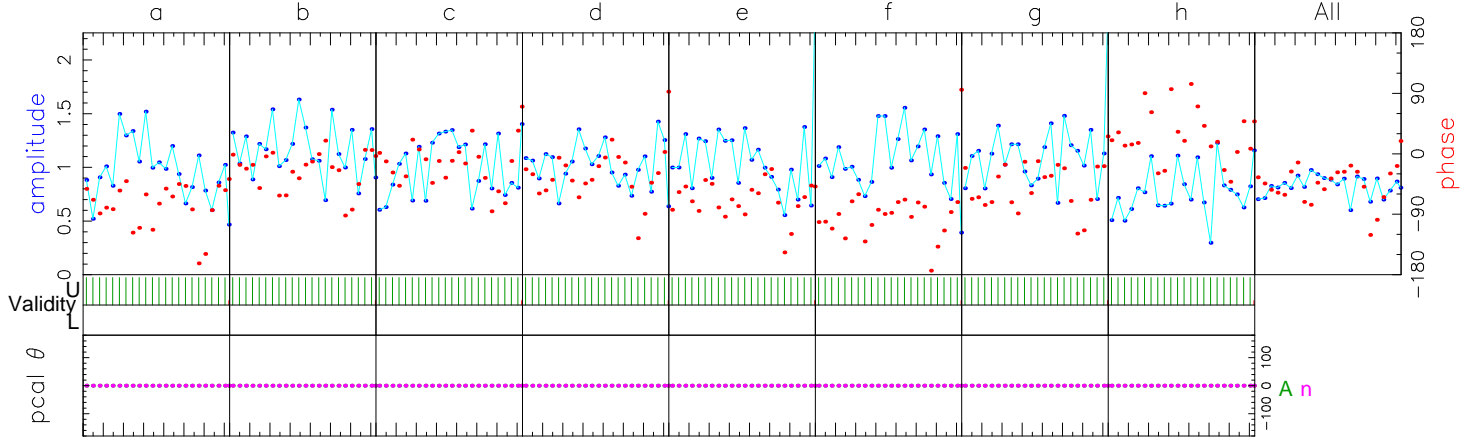
Fringe quality 5

SNR 42.1
 Int time 419.770
 Amp 0.751
 Phase -46.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.000929
 MBD -0.001603
 Fringe rate (Hz)
 0.008470
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142636
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-76.1	-24.1	-19.8	-33.7	-67.7	-93.4	-49.8	27.5	Phase	-46.2
	0.8	1.0	0.9	0.9	1.0	1.0	0.9	0.6	Ampl.	0.9
	258.3	256.5	256.2	256.5	256.5	257.0	256.8	259.0	Sbd box	256.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-5.23468035206E+03	Apriori delay (usec)	-5.23467874955E+03	Resid mbdelay (usec)	-1.60251E-03	+/-	2.6E-05
Sband delay (usec)	-5.23467967905E+03	Apriori clock (usec)	-2.1130354E+03	Resid sbdelay (usec)	-9.29500E-04	+/-	2.0E-04
Phase delay (usec)	-5.23467875104E+03	Apriori clockrate (us/s)	-6.2999996E-07	Resid phdelay (usec)	-1.48923E-06	+/-	8.8E-08
Delay rate (us/s)	-4.51834289508E-01	Apriori rate (us/s)	-4.51834387840E-01	Resid rate (us/s)	9.83322E-08	+/-	3.6E-10
Total phase (deg)	-221.2	Apriori accel (us/s/s)	-2.41534088080E-05	Resid phase (deg)	-46.2	+/-	2.7

ph/seg (deg)	26.9	Theor.	6.5	Amplitude	0.751 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	16.2		11.4	Search (2048X32)	0.739	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	41.6		3.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	24.4		6.7	Inc. seg. avg.	0.824	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.885	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 358.7 el 46.9 pa 178.8 n: az 131.3 el 60.9 pa -36.0 u,v (fr/asec) 2729.284 -9486.478 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/An..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/An.W.4.21EBC1

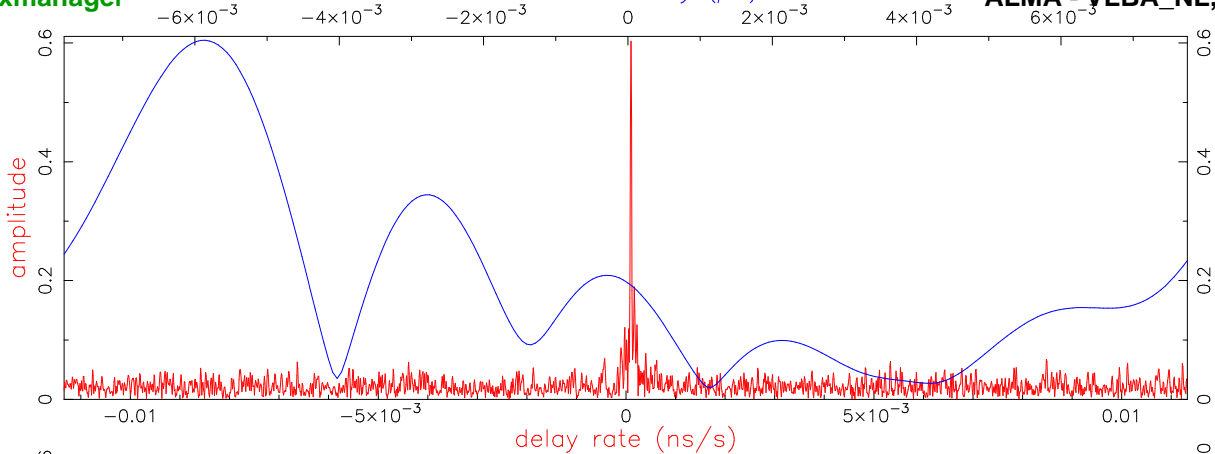
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, An

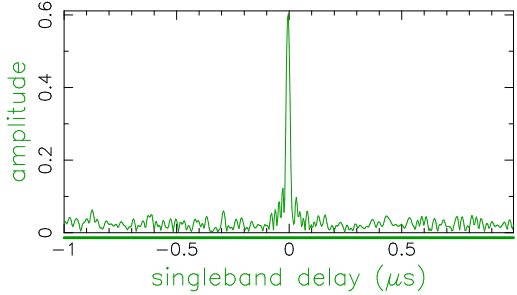
ALMA - VLBA_NL, fgroup W, pol XR

multiband delay (μ s)

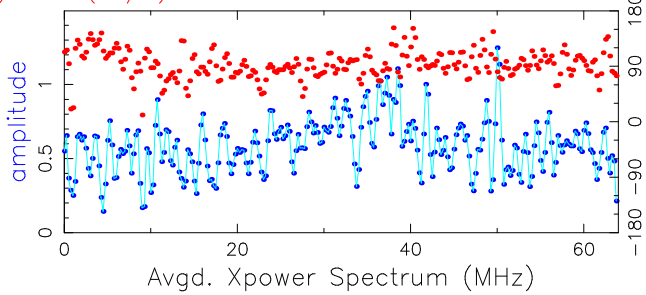


Fringe quality 5

SNR 34.2
 Int time 419.770
 Amp 0.611
 Phase 98.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.005393
 MBD -0.005962
 Fringe rate (Hz) 0.008473
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

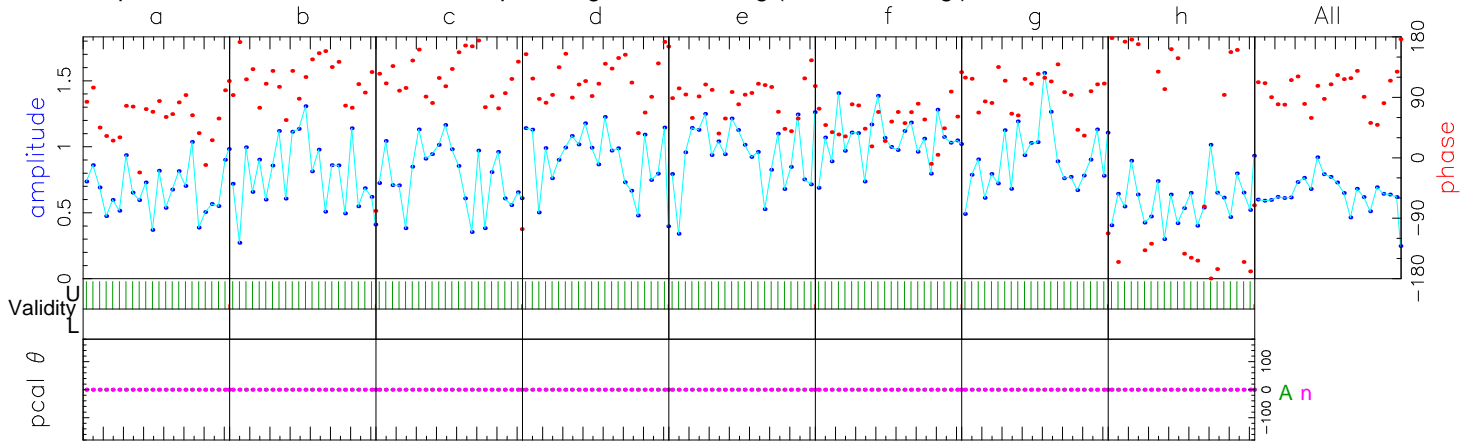


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142645
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.8749285s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	64.1	114.6	121.7	118.8	85.3	51.4	101.1	-178.0	Phase	98.8
	0.6	0.7	0.7	0.8	0.8	0.9	0.8	0.5	Ampl.	0.7
	257.6	255.5	254.8	255.2	255.7	255.7	256.0	257.9	Sbd box	255.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
n	0	0	0	0	0	0	0	0	PC freqs	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-5.23468471137E+03	Apriori delay (usec)	-5.23467874955E+03	Resid mbdelay (usec)	-5.96182E-03	+/-	3.2E-05
Sband delay (usec)	-5.23468414230E+03	Apriori clock (usec)	-2.1130354E+03	Resid sbdelay (usec)	-5.39275E-03	+/-	2.5E-04
Phase delay (usec)	-5.23467874636E+03	Apriori clockrate (us/s)	-6.2999996E-07	Resid phdelay (usec)	3.18576E-06	+/-	1.1E-07
Delay rate (us/s)	-4.51834289482E-01	Apriori rate (us/s)	-4.51834387840E-01	Resid rate (us/s)	9.83577E-08	+/-	4.5E-10
Total phase (deg)	-76.2	Apriori accel (us/s/s)	-2.41534088080E-05	Resid phase (deg)	98.8	+/-	3.3

ph/seg (deg)	24.7	RMS	24.7	Theor.	8.0	Amplitude	0.611 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	18.4		18.4		14.0	Search (2048X32)	0.601	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	44.2		44.2		4.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	30.0		30.0		8.3	Inc. seg. avg.	0.652	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Inc. frq. avg.	0.722	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 358.7 el 46.9 pa 178.8 n: az 131.3 el 60.9 pa -36.0 u,v (fr/asec) 2729.284 -9486.478 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/An..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/An.W.50.21EBC1

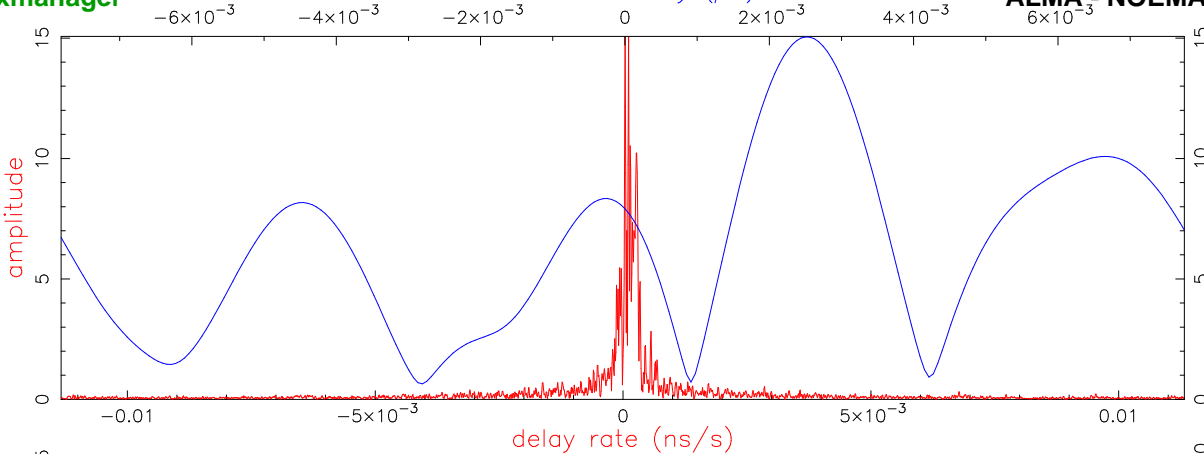
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, AN

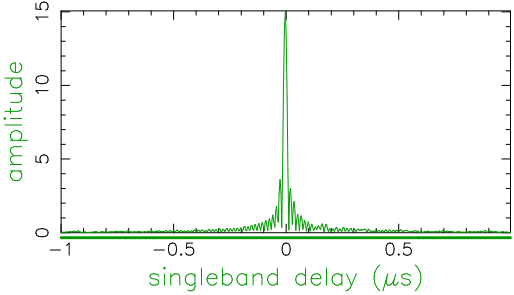
ALMA - NOEMA, fgroup W, pol XR

multiband delay (μ s)

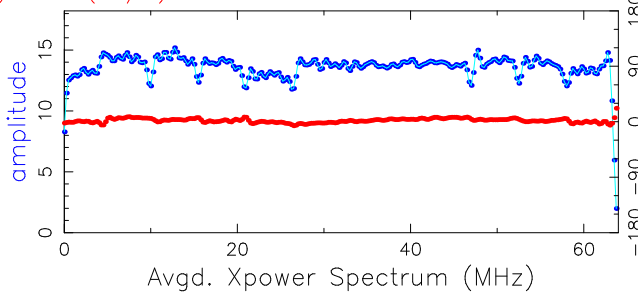


Fringe quality 2

SNR 776.3
 Int time 354.881
 Amp 15.070
 Phase -76.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.004307
 MBD 0.002520
 Fringe rate (Hz)
 0.009250
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

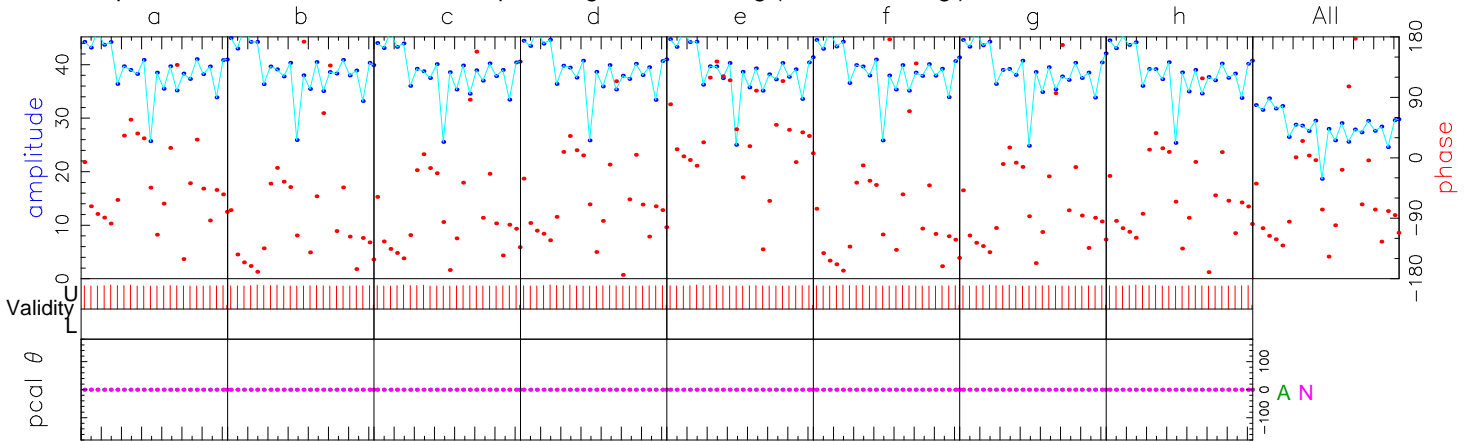


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142646
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-44.6	-116.3	-96.7	-69.3	41.3	-113.4	-86.3	-64.6		-76.6
	20.7	20.7	20.5	20.7	20.6	20.7	20.6	20.5		20.6
	255.7	255.8	255.9	256.0	256.3	256.2	256.0	255.9		255.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0		
N	1000	1000	1000	1000	1000	1000	1000	1000		
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
N	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX		Chan ids
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks

Group delay (usec) (SBD)	4.86541792197E+03	Apriori delay (usec)	4.86541540206E+03	Resid mbdelay (usec)	2.51991E-03	+/-	1.4E-06
Sband delay (usec)	4.86541109531E+03	Apriori clock (usec)	-2.0942253E+03	Resid sbdelay (usec)	-4.30675E-03	+/-	1.1E-05
Phase delay (usec)	4.86541539959E+03	Apriori clockrate (us/s)	-2.0000000E-07	Resid phdelay (usec)	-2.47045E-06	+/-	4.8E-09
Delay rate (us/s)	9.59155755606E-01	Apriori rate (us/s)	9.59155648218E-01	Resid rate (us/s)	1.07388E-07	+/-	2.0E-11
Total phase (deg)	187.4	Apriori accel (us/s/s)	-7.91785225848E-05	Resid phase (deg)	-76.6	+/-	0.1

ph/seg (deg)	66.1	0.4	Search (2048X32)	14.452	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	91.1	0.6	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	55.6	0.2	Inc. seg. avg.	28.434	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	36.7	0.4	Inc. frq. avg.	20.606	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011	0.011
A: az 358.7 el 46.9 pa 178.8	N: az 274.3 el 24.7 pa 49.0	u, v (fr/asec)	-5958.192 -11323.226			ion window (TEC)	0.00	0.00	

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/AN..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/AN.W.57.21EBC1

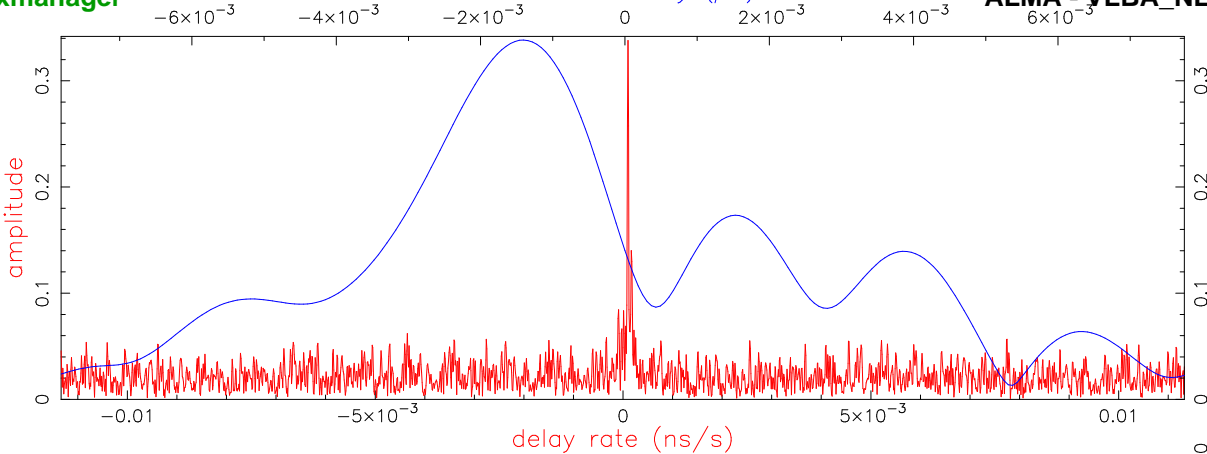
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, An

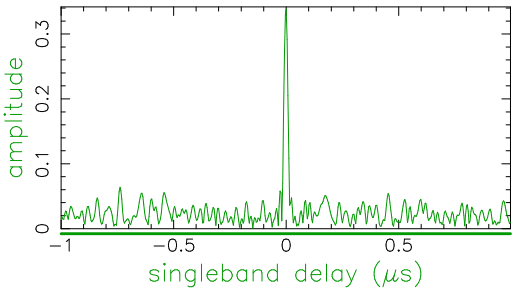
ALMA - VLBA_NL, fgroup W, pol YL

multiband delay (μ s)

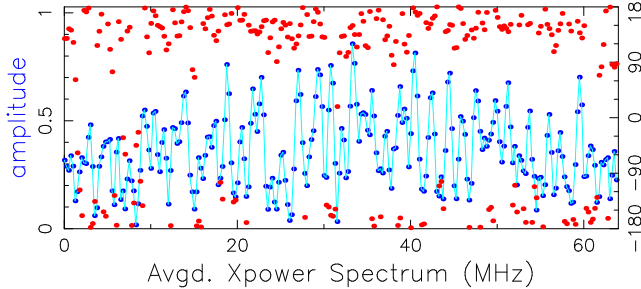


Fringe quality 8

SNR 19.2
 Int time 419.821
 Amp 0.342
 Phase 158.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.001403
 MBD -0.001467
 Fringe rate (Hz)
 0.008482
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

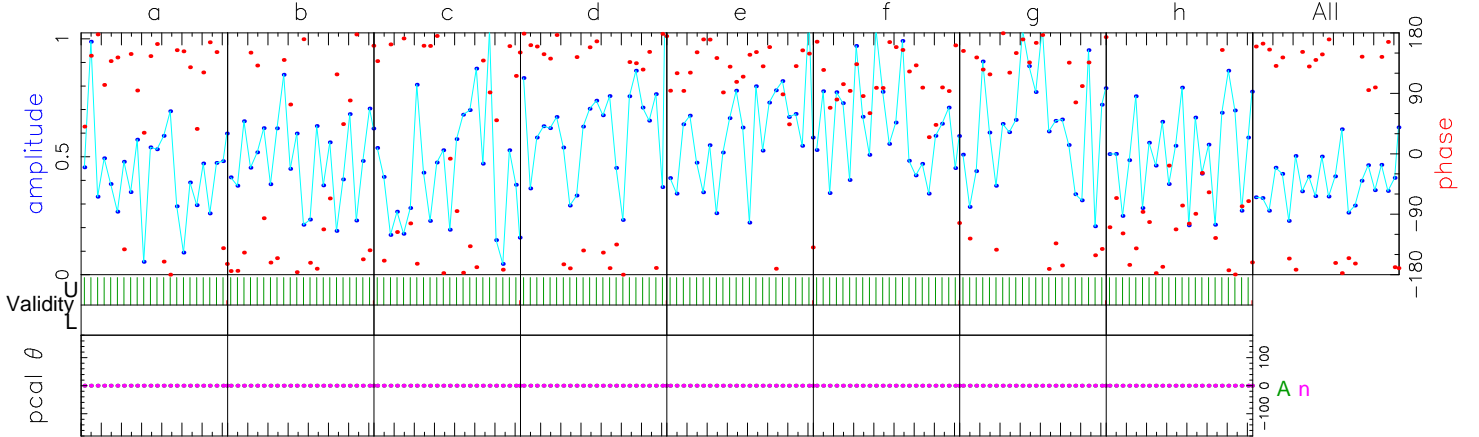


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142649
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0		
n	0	0	0	0	0	0	0	0		
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:n	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
n	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY		
n	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec) (SBD)	-5.23468021618E+03									
Sband delay (usec)	-5.23468015255E+03									
Phase delay (usec)	-5.23467874444E+03									
Delay rate (us/s)	-4.51834289372E-01									
Total phase (deg)			-16.5							
Apriori delay (usec)					-5.23467874955E+03				-1.46663E-03	+/- 5.7E-05
Apriori clock (usec)					-2.1130354E+03				-1.40300E-03	+/- 4.5E-04
Apriori clockrate (us/s)					-6.2999996E-07				5.11105E-06	+/- 1.9E-07
Apriori rate (us/s)					-4.51834387840E-01				9.84683E-08	+/- 8.0E-10
Apriori accel (us/s/s)					-2.41534088080E-05				158.5	+/- 6.0
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us										
Data rate(Mb/s): 2048										
nlags: 256 t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00
simultaneous interpolator										

ph/seg (deg) 30.4 14.3 Search (2048X32) 0.336 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 30.2 25.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.0 8.5 Inc. seg. avg. 0.377 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 36.6 14.8 Inc. frq. avg. 0.405 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 A: az 358.7 el 46.9 pa 178.8 n: az 131.3 el 60.9 pa -36.0 u,v (fr/asec) 2729.284 -9486.478 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/An..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/An.W.73.21EBC1

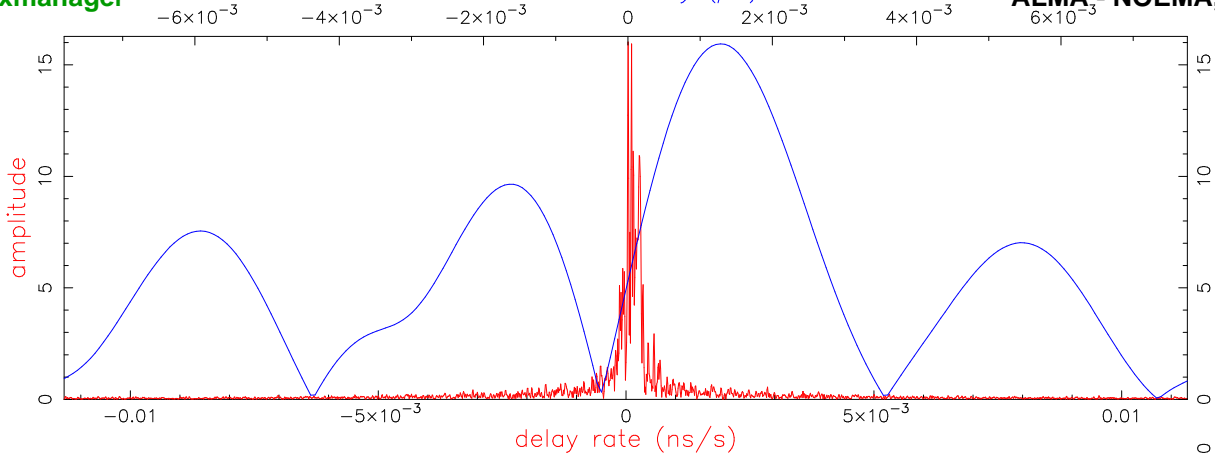
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, AN

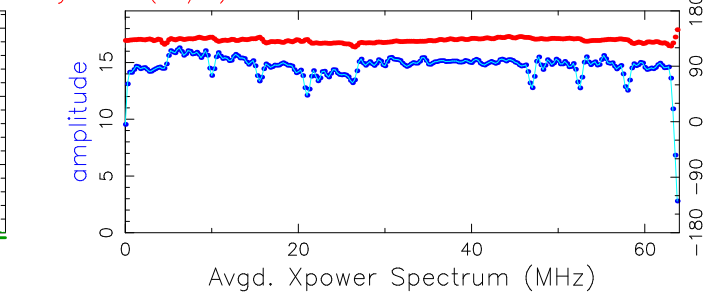
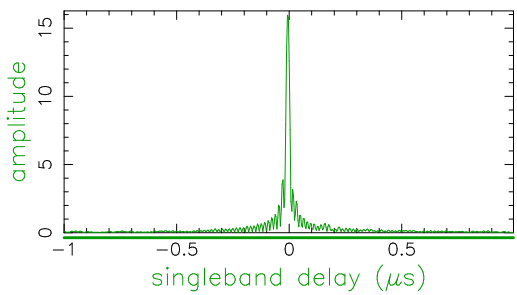
ALMA - NOEMA, fgroup W, pol YL

multiband delay (μ s)



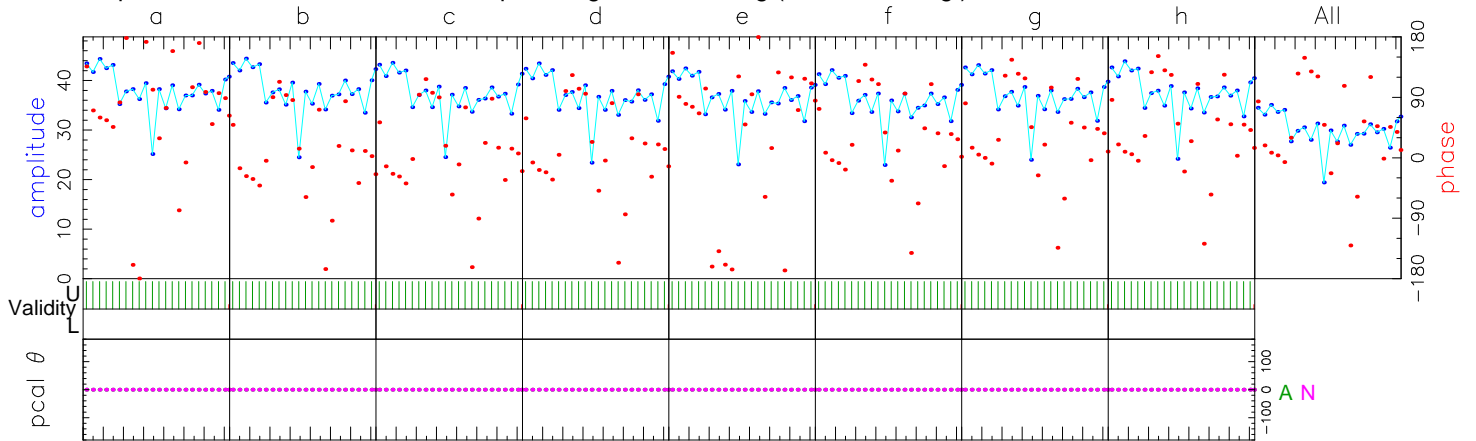
Fringe quality 2

SNR 911.8
 Int time 419.827
 Amp 16.274
 Phase 47.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.006056
 MBD 0.001289
 Fringe rate (Hz)
 0.009211
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142649
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	98.8	11.7	15.7	21.7	119.9	36.4	44.6	49.6	Phase	47.2
	20.2	20.2	19.8	19.5	19.3	19.2	19.6	19.9	Ampl.	19.7
	255.3	255.2	255.5	255.5	255.7	255.7	255.5	255.4	Sbd box	255.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	4.86541669144E+03	Apriori delay (usec)	4.86541540206E+03	Resid mbdelay (usec)	1.28938E-03	+/-	1.2E-06
Sband delay (usec)	4.86540934631E+03	Apriori clock (usec)	-2.0942253E+03	Resid sbdelay (usec)	-6.05575E-03	+/-	9.4E-06
Phase delay (usec)	4.86541540358E+03	Apriori clockrate (us/s)	-2.0000000E-07	Resid phdelay (usec)	1.52340E-06	+/-	4.1E-09
Delay rate (us/s)	9.59155755146E-01	Apriori rate (us/s)	9.59155648218E-01	Resid rate (us/s)	1.06928E-07	+/-	1.7E-11
Total phase (deg)	311.3	Apriori accel (us/s/s)	-7.91785225848E-05	Resid phase (deg)	47.2	+/-	0.1

ph/seg (deg)	66.2	RMS	66.2	Theor.	0.3	Amplitude	16.274 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	87.1		87.1		0.5	Search (2048X32)	14.895	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	42.8		42.8		0.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	21.3		21.3		0.3	Inc. seg. avg.	30.050	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Inc. frq. avg.	19.715	Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 358.7 el 46.9 pa 178.8 N: az 274.3 el 24.7 pa 49.0 u,v (fr/asec) -5958.192 -11323.226 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/AN..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/AN.W.77.21EBC1

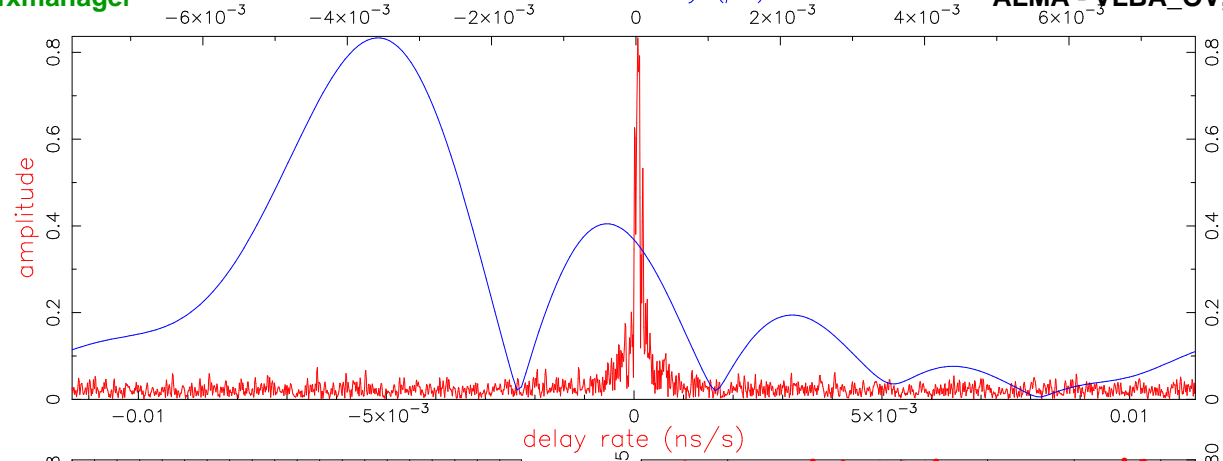
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ao

ALMA - VLBA_OV, fgroup W, pol XL

multiband delay (μ s)



Fringe quality 4

SNR 46.9

Int time 419.767

Amp 0.837

Phase -151.9

PFD 0.0e+00

Delays (us)

SBD -0.003085

MBD -0.003538

Fringe rate (Hz)

0.006607

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. mg006b

Exper # 16383

Yr:day 2021:115

Start 231500.00

Stop 232159.84

FRT 231830.00

Corr/FF/build

2022:023:120903

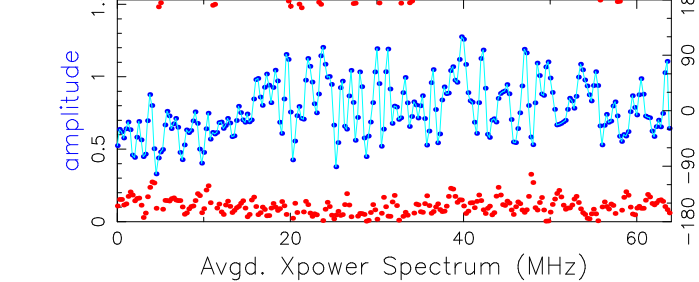
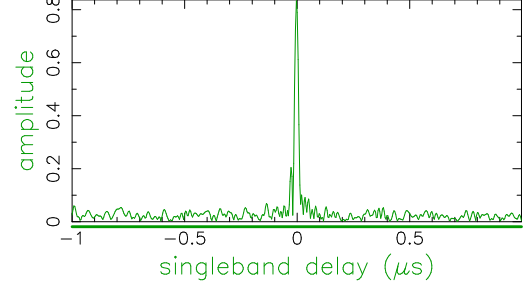
2022:024:142637

2021:298:085625

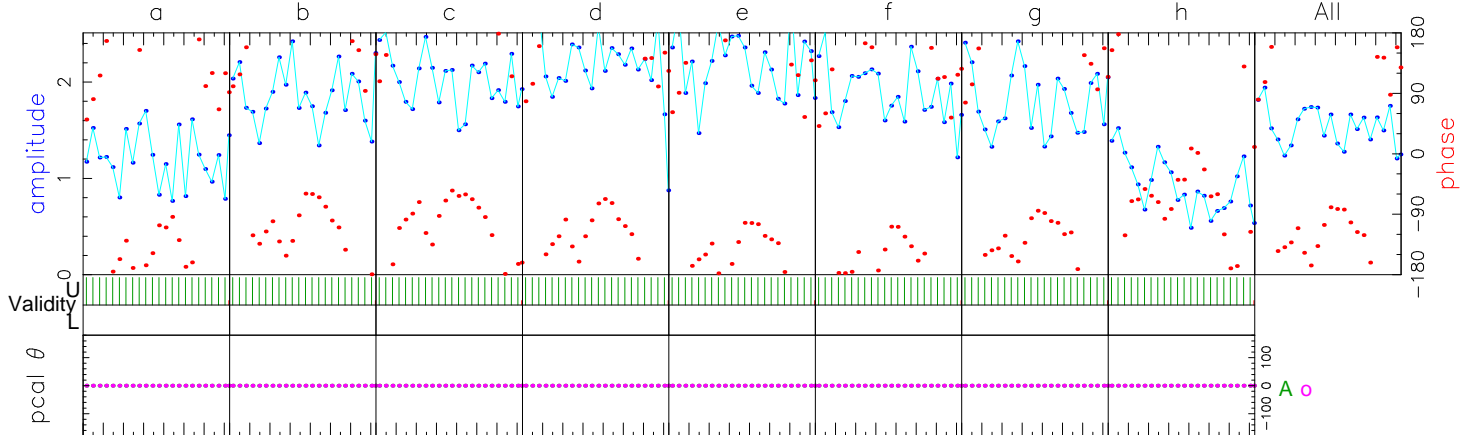
RA & Dec (J2000)

08h54m48.874928s

+20°06'30.640850"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	175.2	-136.0	-116.2	-145.8	-172.7	173.2	-156.7	-93.3	Phase	-151.9
	0.7	1.0	1.1	1.1	1.2	1.0	1.0	0.5	Ampl.	0.9
	257.7	256.2	255.8	256.1	256.2	256.3	256.4	258.4	Sbd box	256.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-1.49011419273E+03		Apriori delay (usec)		-1.49011065505E+03		Resid mbdelay (usec)		-3.53768E-03 +/- 2.3E-05	
Sband delay (usec)	-1.49011374030E+03		Apriori clock (usec)		-2.1112976E+03		Resid sbdelay (usec)		-3.08525E-03 +/- 1.8E-04	
Phase delay (usec)	-1.49011065995E+03		Apriori clockrate (us/s)		-6.9000003E-07		Resid phdelay (usec)		-4.89731E-06 +/- 7.9E-08	
Delay rate (us/s)	-9.18094832137E-01		Apriori rate (us/s)		-9.18094908842E-01		Resid rate (us/s)		7.67049E-08 +/- 3.3E-10	
Total phase (deg)			Apriori accel (us/s/s)		-4.16974240027E-05		Resid phase (deg)		-151.9 +/- 2.4	

ph/seg (deg) 60.0 5.9 Search (2048X32) 0.824 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 88.2 10.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 35.9 3.5 Inc. seg. avg. 1.541 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 30.5 6.0 Inc. frq. avg. 0.937 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011

A: az 358.7 el 46.9 pa 178.8 o: az 97.6 el 43.8 pa -57.2 u,v (fr/asec) 5542.384 -9495.339 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ao..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ao.W.13.21EBC1

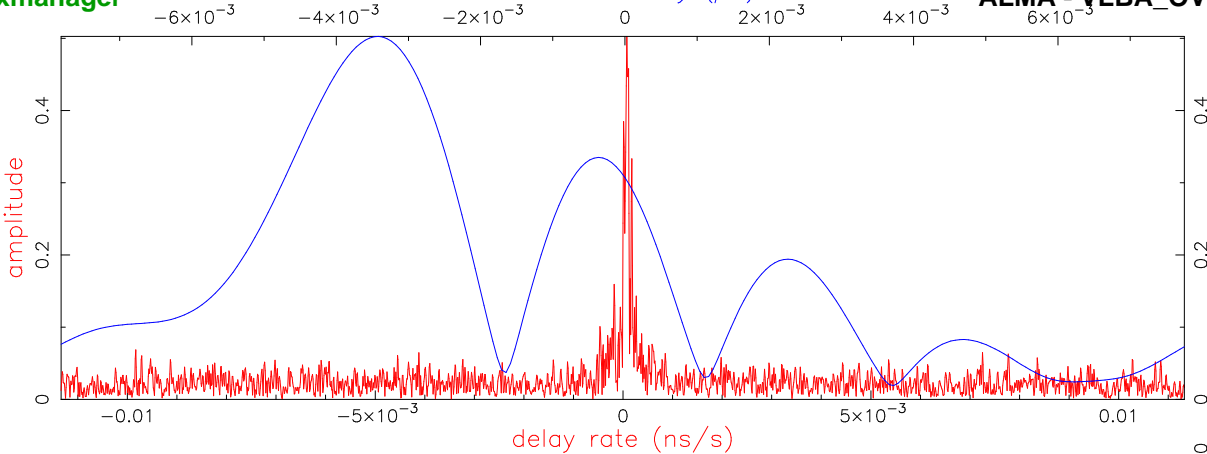
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ao

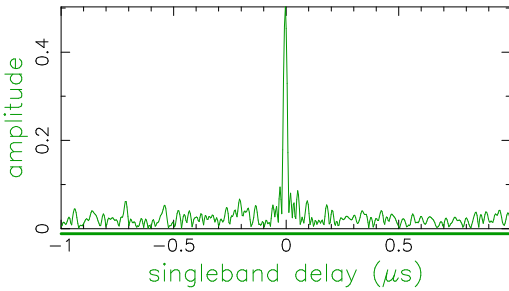
ALMA - VLBA_OV, fgroup W, pol YR

multiband delay (μ s)

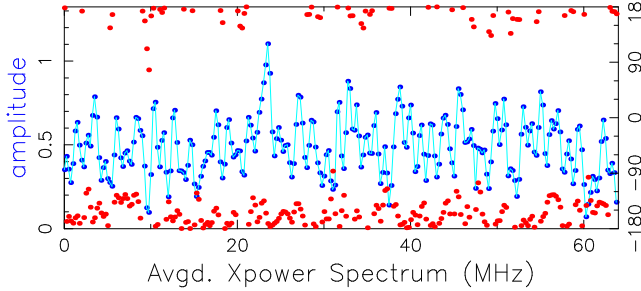


Fringe quality 6

SNR 28.2
 Int time 419.818
 Amp 0.503
 Phase -169.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.004027
 MBD -0.003433
 Fringe rate (Hz)
 0.006708
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

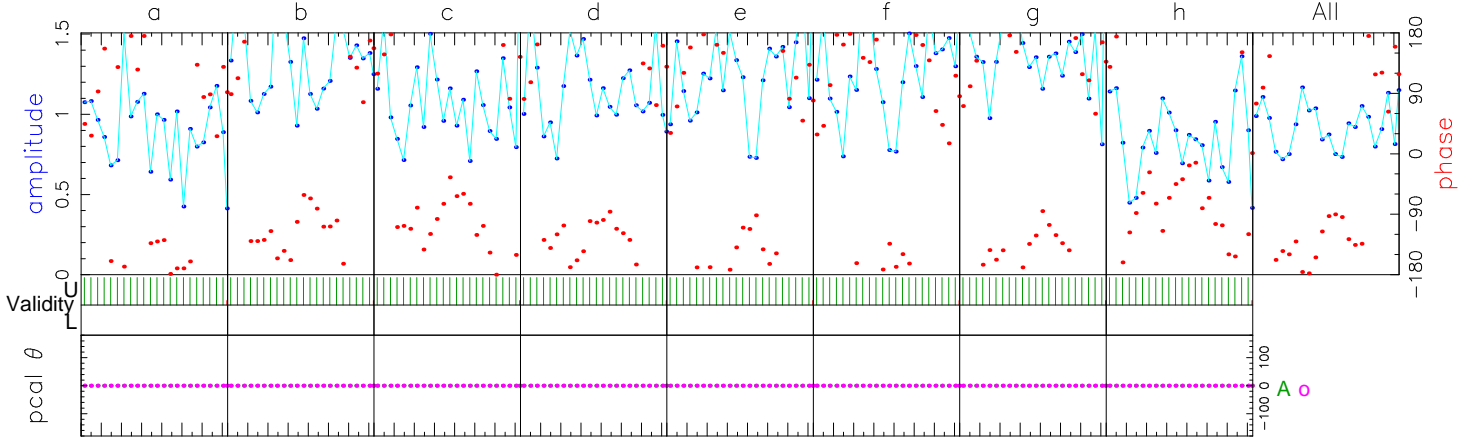


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142641
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-1.49011408789E+03	Apriori delay (usec)	-1.49011065505E+03	Resid mbdelay (usec)	-3.43284E-03	+/-	3.9E-05
Sband delay (usec)	-1.49011468255E+03	Apriori clock (usec)	-2.1112976E+03	Resid sbdelay (usec)	-4.02750E-03	+/-	3.1E-04
Phase delay (usec)	-1.49011066052E+03	Apriori clockrate (us/s)	-6.9000003E-07	Resid phdelay (usec)	-5.46907E-06	+/-	1.3E-07
Delay rate (us/s)	-9.18094830968E-01	Apriori rate (us/s)	-9.18094908842E-01	Resid rate (us/s)	7.78740E-08	+/-	5.4E-10
Total phase (deg)	-106.9	Apriori accel (us/s/s)	-4.16974240027E-05	Resid phase (deg)	-169.6	+/-	4.1

ph/seg (deg)	60.2	RMS	9.8	Theor.	5.03 +/- 0.018	PCal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	87.5	Search (2048X32)	0.501	Interp.	0.000	PCal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	43.9	Inc. seg. avg.	0.909	Inc. frq. avg.	0.608	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	31.1	Inc. frq. avg.	0.608			Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 358.7 el 46.9 pa 178.8 o: az 97.6 el 43.8 pa -57.2 u,v (fr/asec) 5542.384 -9495.339 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ao..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ao.W.34.21EBC1

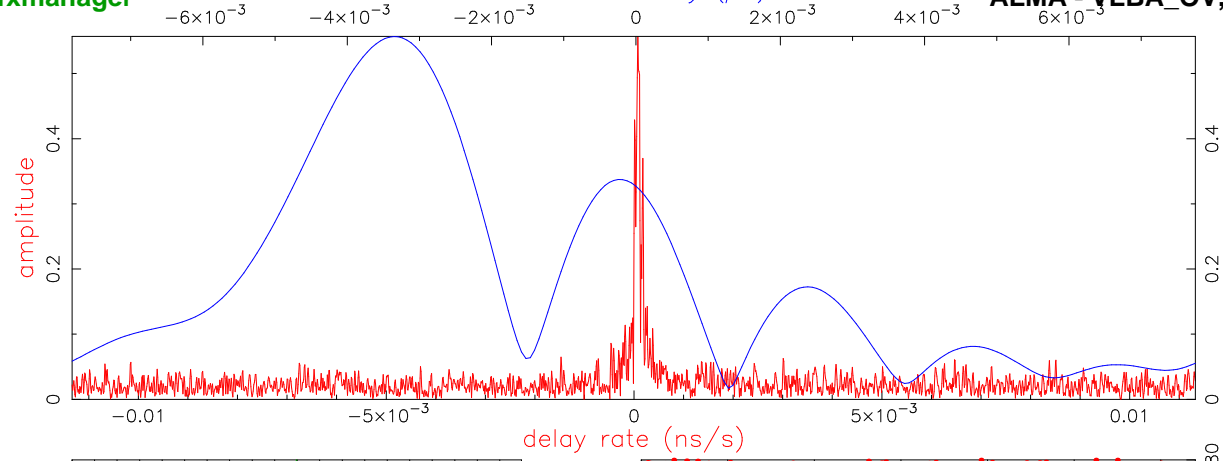
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ao

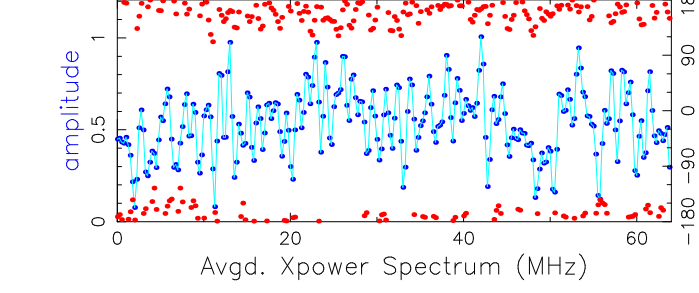
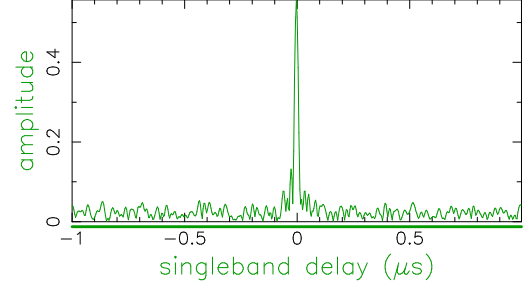
ALMA - VLBA_OV, fgroup W, pol XR

multiband delay (μ s)



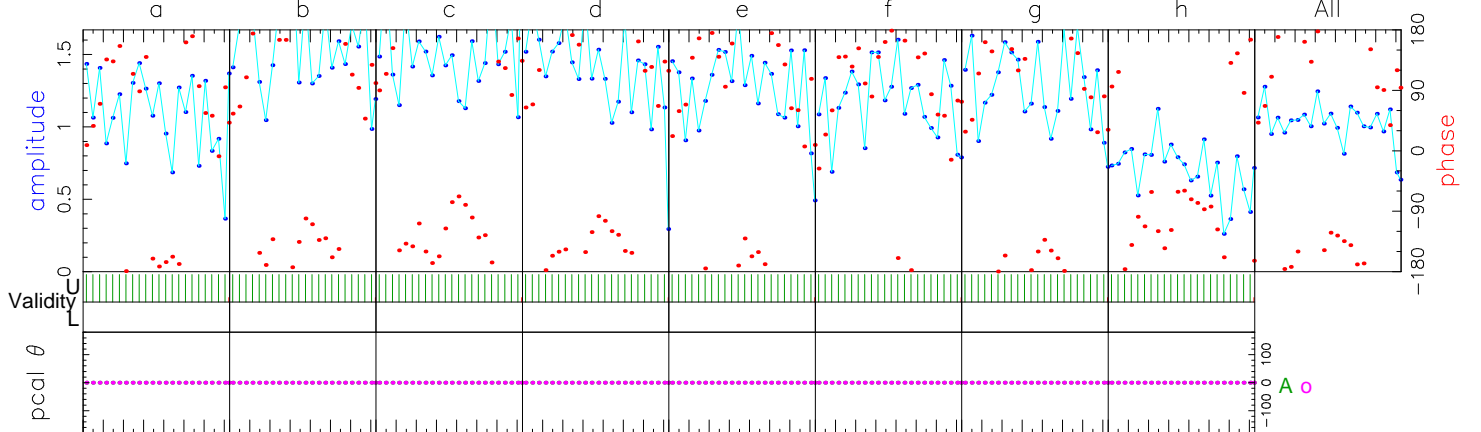
Fringe quality 4

SNR 31.2
 Int time 419.767
 Amp 0.557
 Phase 164.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.003633
 MBD -0.003328
 Fringe rate (Hz)
 0.006668
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142646
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	126.8	175.2	-158.6	-177.9	143.6	120.7	148.6	-121.8	Phase	164.6
	0.5	0.8	0.8	0.8	0.6	0.6	0.7	0.4	Ampl.	0.7
	258.2	255.6	256.0	255.9	256.0	256.1	256.5	258.3	Sbd box	256.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
o	0	0	0	0	0	0	0	0	PC freqs	
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-1.49011398332E+03	Apriori delay (usec)	-1.49011065505E+03	Resid mbdelay (usec)	-3.32828E-03	+/-	3.5E-05
Sband delay (usec)	-1.49011428780E+03	Apriori clock (usec)	-2.1112976E+03	Resid sbdelay (usec)	-3.63275E-03	+/-	2.8E-04
Phase delay (usec)	-1.49011064974E+03	Apriori clockrate (us/s)	-6.9000003E-07	Resid phdelay (usec)	5.30642E-06	+/-	1.2E-07
Delay rate (us/s)	-9.18094831436E-01	Apriori rate (us/s)	-9.18094908842E-01	Resid rate (us/s)	7.74057E-08	+/-	4.9E-10
Total phase (deg)	-132.8	Apriori accel (us/s/s)	-4.16974240027E-05	Resid phase (deg)	164.6	+/-	3.7

ph/seg (deg)	60.8	RMS	8.8	Theor.	8.8	Amplitude	0.557 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	88.4	Search (2048X32)	0.555	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	43.3	Inc. seg. avg.	1.021	Inc. frq. avg.	0.658	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	31.5	Inc. frq. avg.	0.658	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 358.7 el 46.9 pa 178.8 o: az 97.6 el 43.8 pa -57.2 u,v (fr/asec) 5542.384 -9495.339 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ao..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ao.W.55.21EBC1

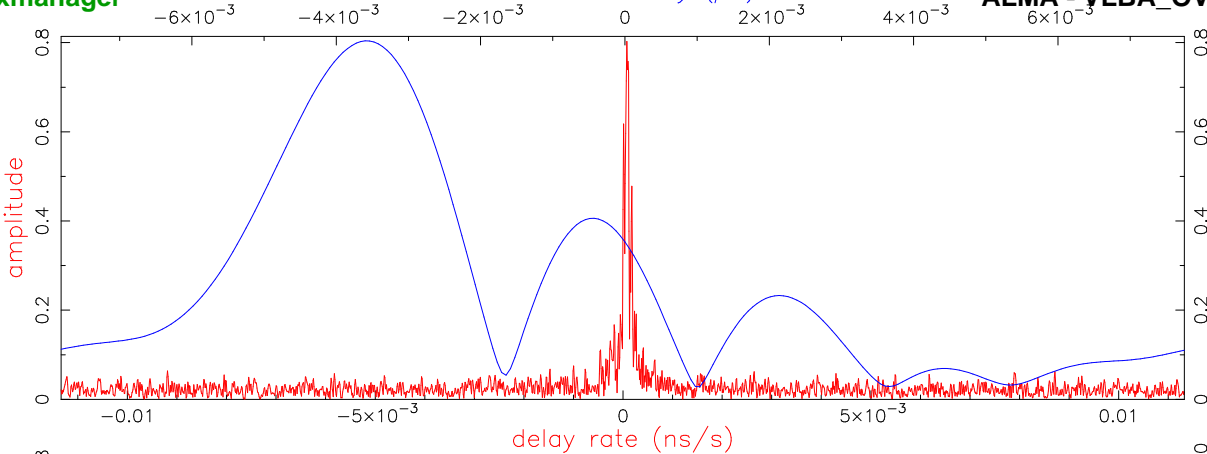
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ao

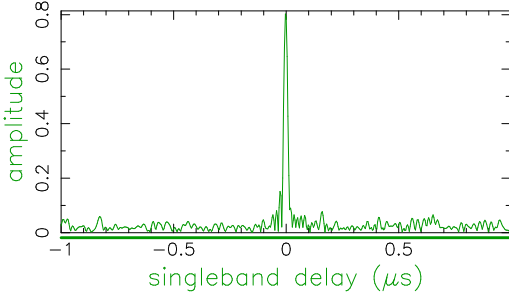
ALMA - VLBA_OV, fgroup W, pol YL

multiband delay (μ s)

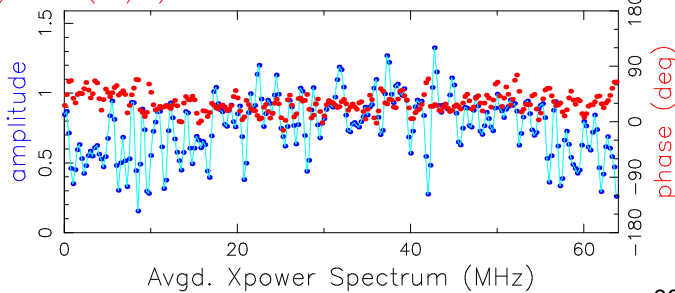


Fringe quality 4

SNR 45.6
 Int time 419.818
 Amp 0.814
 Phase 43.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.002355
 MBD -0.003507
 Fringe rate (Hz)
 0.006740
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

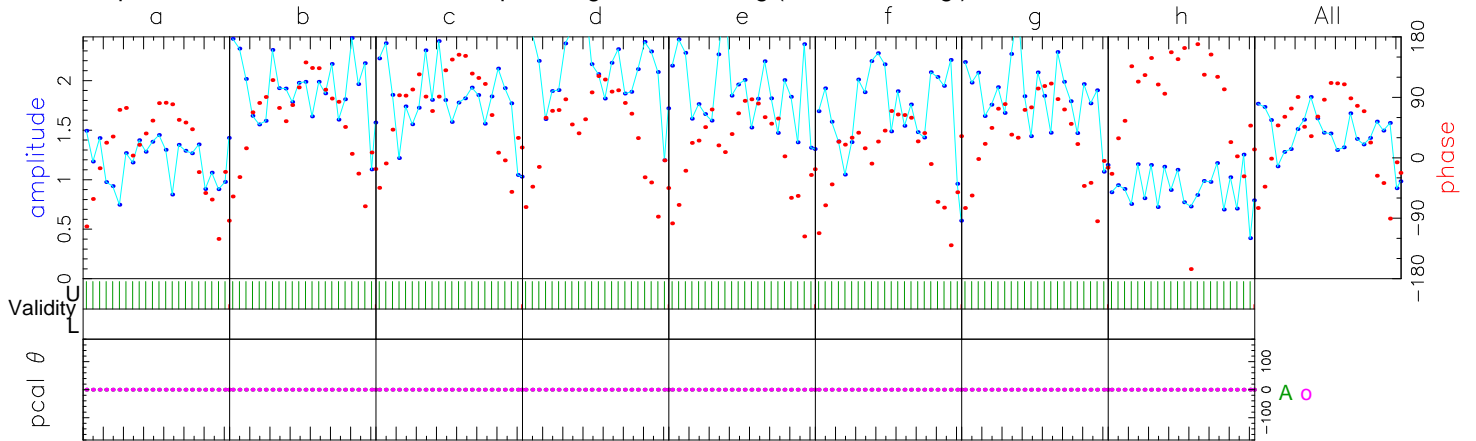


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142649
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-1.49011416161E+03	Apriori delay (usec)	-1.49011065505E+03	Resid mbdelay (usec)	-3.50656E-03	+/-	2.4E-05
Sband delay (usec)	-1.49011300980E+03	Apriori clock (usec)	-2.1112976E+03	Resid sbdelay (usec)	-2.35475E-03	+/-	1.9E-04
Phase delay (usec)	-1.49011065366E+03	Apriori clockrate (us/s)	-6.9000003E-07	Resid phdelay (usec)	1.39266E-06	+/-	8.1E-08
Delay rate (us/s)	-9.18094830599E-01	Apriori rate (us/s)	-9.18094908842E-01	Resid rate (us/s)	7.82432E-08	+/-	3.3E-10
Total phase (deg)	-254.1	Apriori accel (us/s/s)	-4.16974240027E-05	Resid phase (deg)	43.2	+/-	2.5

ph/seg (deg)	59.9	Theor.	6.0	Amplitude	0.814 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	84.6	Search (2048X32)	0.794	Search	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	38.6	Inc. seg. avg.	1.461	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	28.9	Inc. frq. avg.	0.916	Inc. seg. avg.	1.461	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
A:	az 358.7 el 46.9 pa 178.8	o:	az 97.6 el 43.8 pa -57.2	u,v (fr/asec)	5542.384 -9495.339	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ao..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ao.W.74.21EBC1

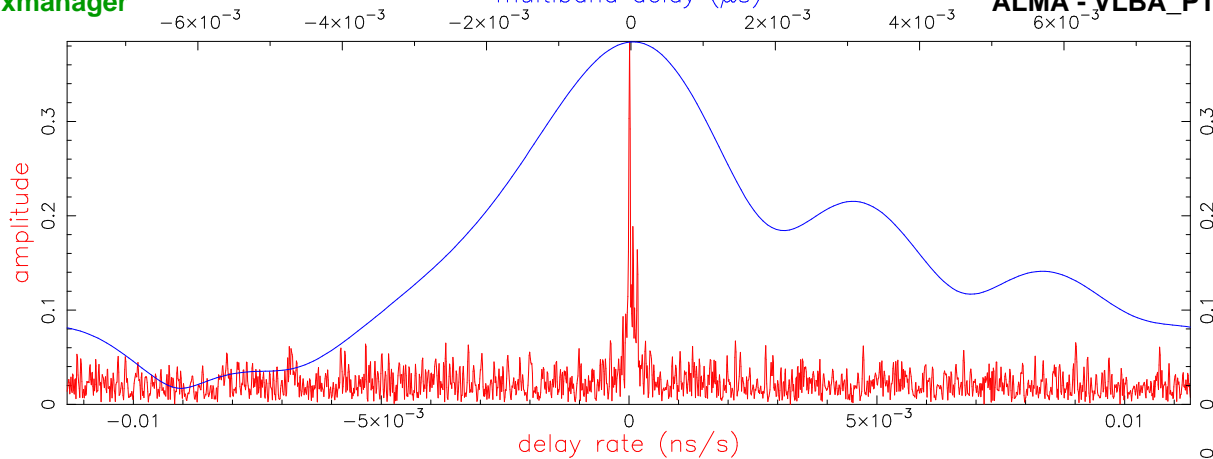
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ap

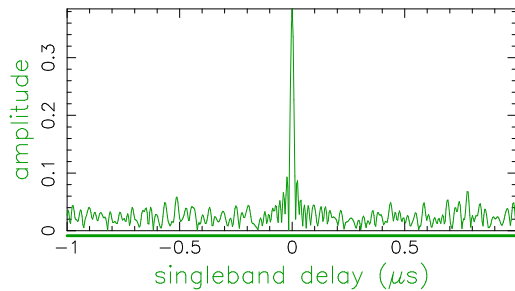
ALMA - VLBA_PT, fgroup W, pol XL

multiband delay (μ s)

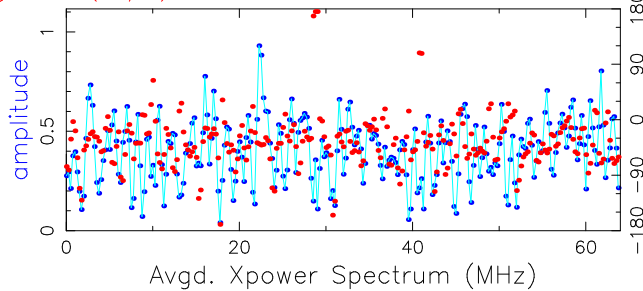


Fringe quality 7

SNR 21.6
 Int time 419.771
 Amp 0.385
 Phase -43.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.000444
 MBD 0.000004
 Fringe rate (Hz)
 0.000885
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

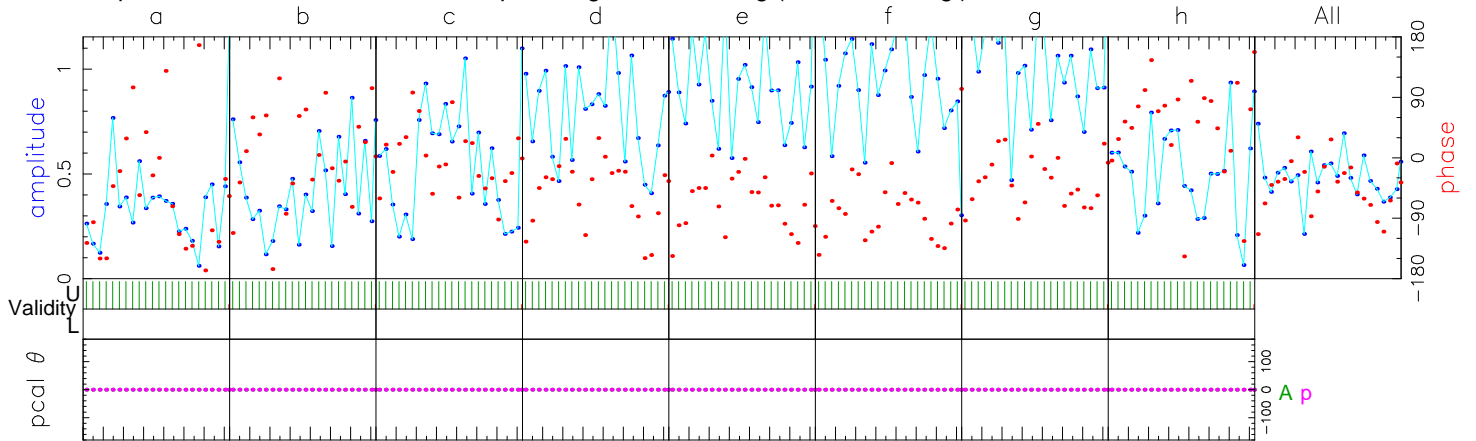


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142638
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-66.8	-5.3	-5.6	-44.1	-64.7	-83.6	-33.8	60.4	Phase	-43.3
	0.1	0.2	0.4	0.6	0.7	0.8	0.8	0.3	Ampl.	0.5
	252.4	255.7	256.2	257.2	257.3	256.9	257.3	259.9	Sbd box	256.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	

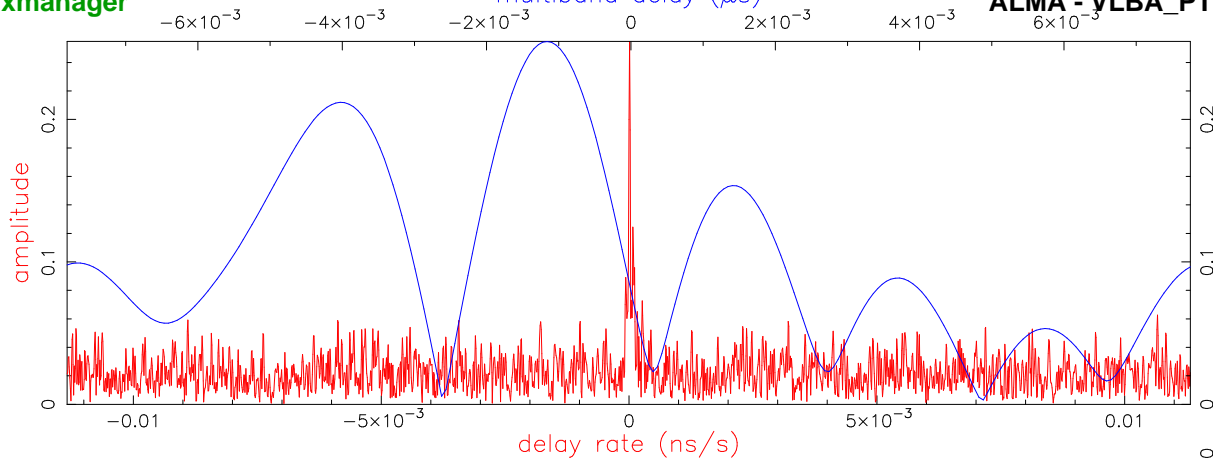
Group delay (usec) (SBD)	-3.59954538514E+03	Apriori delay (usec)	-3.59954538905E+03	Resid mbdelay (usec)	3.91587E-06	+/-	5.0E-05
Sband delay (usec)	-3.59954583305E+03	Apriori clock (usec)	-2.1131157E+03	Resid sbdelay (usec)	-4.44000E-04	+/-	4.0E-04
Phase delay (usec)	-3.59954539045E+03	Apriori clockrate (us/s)	-2.1000000E-07	Resid phdelay (usec)	-1.39591E-06	+/-	1.7E-07
Delay rate (us/s)	-7.95635520359E-01	Apriori rate (us/s)	-7.95635530638E-01	Resid rate (us/s)	1.02790E-08	+/-	7.1E-10
Total phase (deg)	-336.0	Apriori accel (us/s/s)	-2.88913507418E-05	Resid phase (deg)	-43.3	+/-	5.3

ph/seg (deg)	38.1	Theor.	12.7	Amplitude	0.385 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	39.0		22.2	Search (2048X32)	0.384	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	52.2		7.5	Inc. seg. avg.	0.477	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	66.2		13.1	Inc. frq. avg.	0.477	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
						Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
						nlags: 256 t_cohere infinite	

A: az 358.7 el 46.9 pa 178.8 p: az 101.9 el 52.4 pa -59.2 u,v (fr/asec) 4815.883 -8780.306 simultaneous interpolator

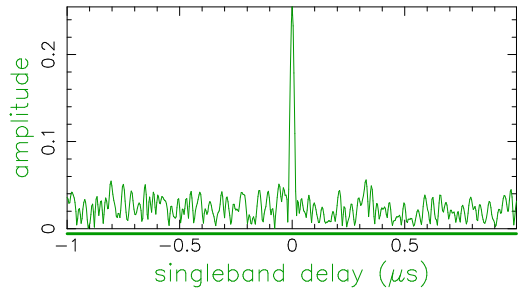
Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ap..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ap.W.20.21EBC1

multiband delay (μ s)

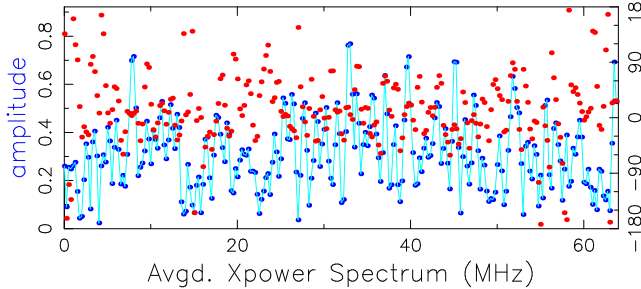


Fringe quality 7

SNR 14.3
 Int time 419.823
 Amp 0.255
 Phase 23.9
 PFD 1.8e-37
 Delays (us)
 SBD -0.000255
 MBD -0.001168
 Fringe rate (Hz)
 0.000907
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

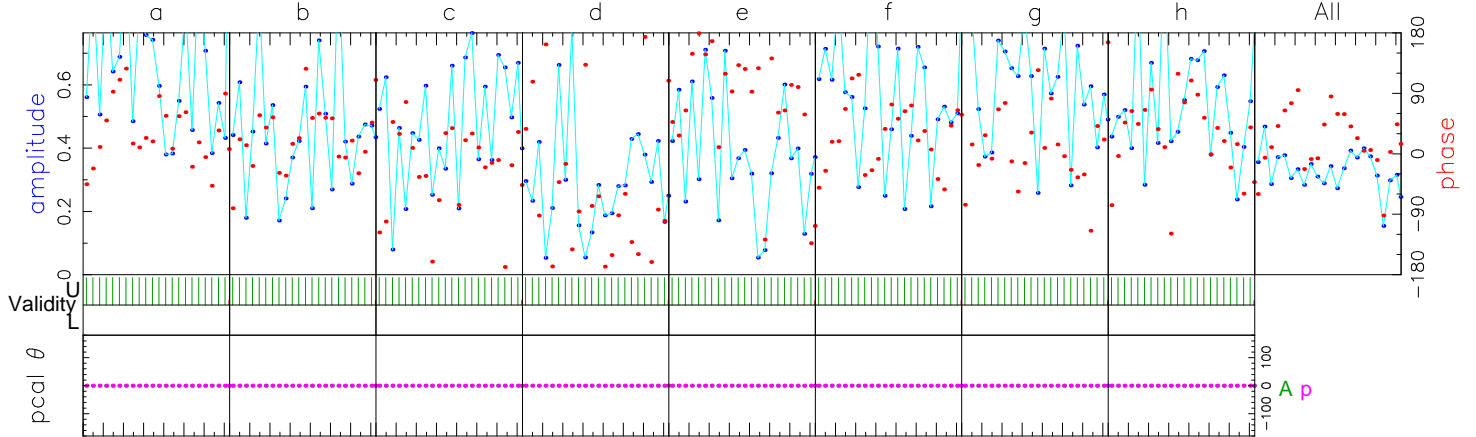


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142642
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	33.8	25.5	-8.2	-111.7	110.5	18.5	2.6	40.8	Phase	23.9
	0.5	0.3	0.3	0.2	0.2	0.4	0.4	0.4	Ampl.	0.3
	258.1	255.8	255.5	255.2	255.7	255.8	256.4	258.5	Sbd box	256.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-3.59954655717E+03	Apriori delay (usec)	-3.59954538905E+03	Resid mbdelay (usec)	-1.16812E-03	+/-	7.6E-05
Sband delay (usec)	-3.59954564455E+03	Apriori clock (usec)	-2.1131157E+03	Resid sbdelay (usec)	-2.55500E-04	+/-	6.0E-04
Phase delay (usec)	-3.59954538828E+03	Apriori clockrate (us/s)	-2.1000000E-07	Resid phdelay (usec)	7.69509E-07	+/-	2.6E-07
Delay rate (us/s)	-7.95635520113E-01	Apriori rate (us/s)	-7.95635530638E-01	Resid rate (us/s)	1.05256E-08	+/-	1.1E-09
Total phase (deg)	-268.8	Apriori accel (us/s/s)	-2.88913507418E-05	Resid phase (deg)	23.9	+/-	8.0

ph/seg (deg)	45.0	Theor.	19.2	Amplitude	0.255 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	38.2	Search (2048X32)	0.249	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	68.0	Inc. seg. avg.	0.314	Inc. frq. avg.	0.324	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	46.5	Inc. frq. avg.	0.324	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011
									ion window (TEC)	0.00 0.00

A: az 358.7 el 46.9 pa 178.8 p: az 101.9 el 52.4 pa -59.2 u,v (fr/asec) 4815.883 -8780.306 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ap..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ap.W.35.21EBC1

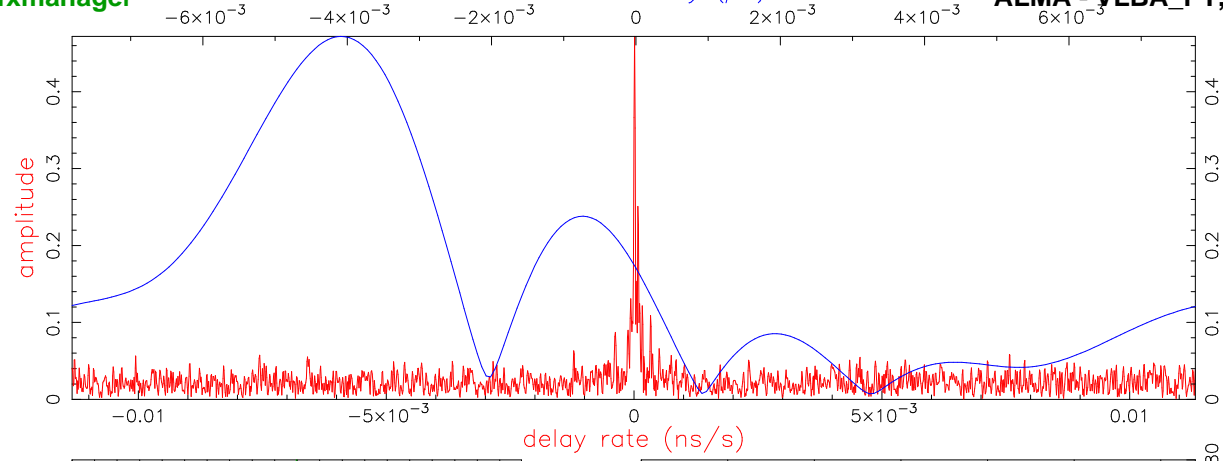
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ap

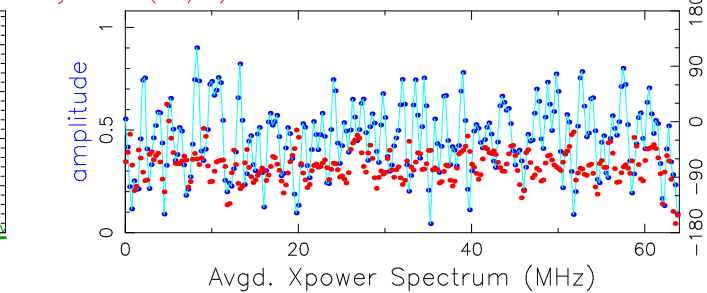
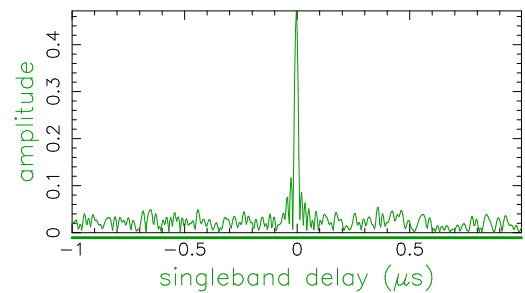
ALMA - VLBA_PT, fgroup W, pol XR

multiband delay (μ s)



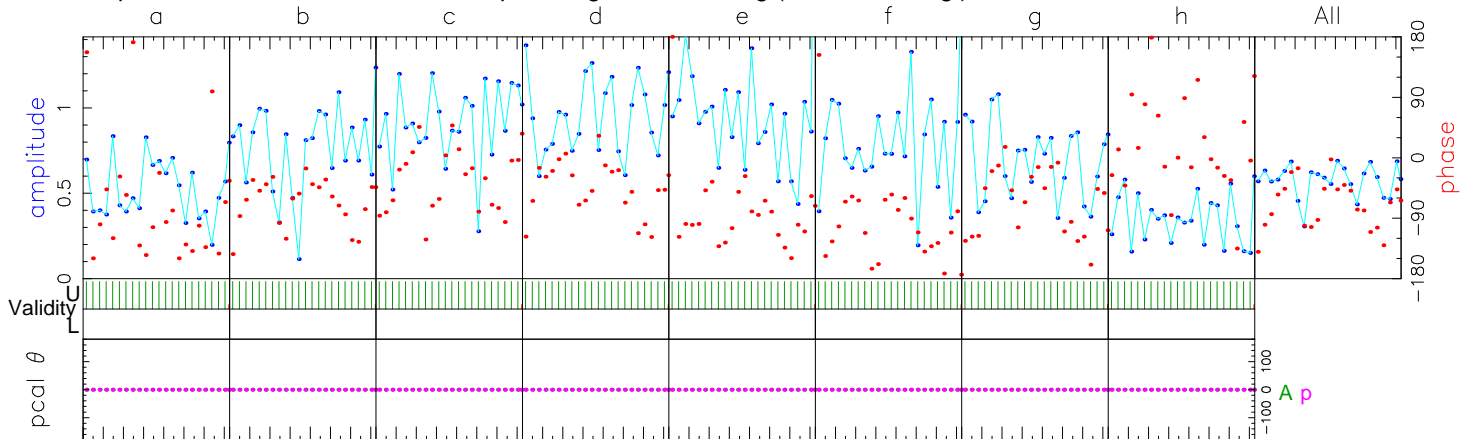
Fringe quality 6

SNR 26.4
 Int time 419.771
 Amp 0.472
 Phase -69.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.003992
 MBD -0.004087
 Fringe rate (Hz)
 0.000851
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142645
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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
	-113.0	-65.5	-33.4	-48.3	-93.0	-108.3	-63.2	6.5	Phase	-69.5
	0.3	0.6	0.7	0.7	0.8	0.6	0.5	0.2	Ampl.	0.5
	257.8	255.6	255.7	256.0	255.9	256.2	256.5	259.0	Sbd box	256.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
p	0	0	0	0	0	0	0	0	PC freqs	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	W04UX	W05UX	W06UX	W07UX	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-3.59954947604E+03		Apriori delay (usec)		-3.59954538905E+03		Resid mbdelay (usec)		-4.08699E-03	+/- 4.1E-05
Sband delay (usec)	-3.59954938130E+03		Apriori clock (usec)		-2.1131157E+03		Resid sbdelay (usec)		-3.99225E-03	+/- 3.3E-04
Phase delay (usec)	-3.59954539129E+03		Apriori clockrate (us/s)		-2.1000000E-07		Resid phdelay (usec)		-2.24078E-06	+/- 1.4E-07
Delay rate (us/s)	-7.95635520764E-01		Apriori rate (us/s)		-7.95635530638E-01		Resid rate (us/s)		9.87446E-09	+/- 5.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-2.88913507418E-05		Resid phase (deg)		-69.5	+/- 4.3

ph/seg (deg) 36.0 10.4 Amplitude 0.472 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 29.7 18.1 Search (2048X32) 0.466 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.8 6.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 43.1 10.7 Inc. seg. avg. 0.566 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 A: az 358.7 el 46.9 pa 178.8 p: az 101.9 el 52.4 pa -59.2 u,v (fr/asec) 4815.883 -8780.306 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ap..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ap.W.53.21EBC1

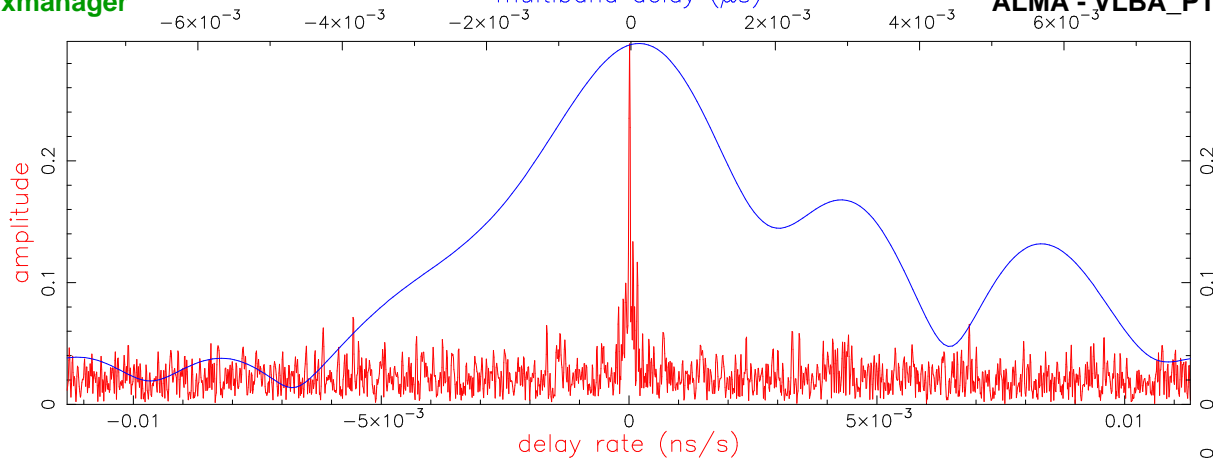
Mk4/DiFX fourfit 3.23 rev 3383

fxmanager

OJ287.21EBC1, No0042, Ap

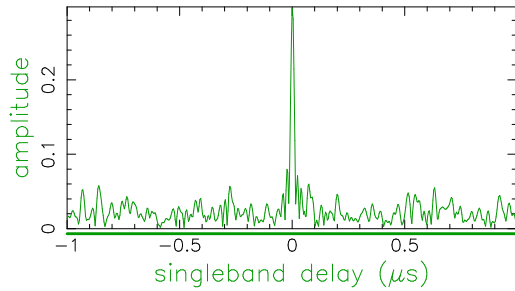
ALMA - VLBA_PT, fgroup W, pol YL

multiband delay (μ s)

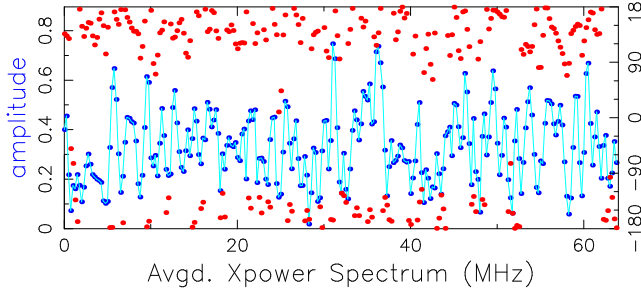


Fringe quality 7

SNR 16.7
 Int time 419.823
 Amp 0.298
 Phase 169.8
 PFD 0.0e+00
 Delays (us)
 SBD 0.001014
 MBD 0.000183
 Fringe rate (Hz) 0.000851
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

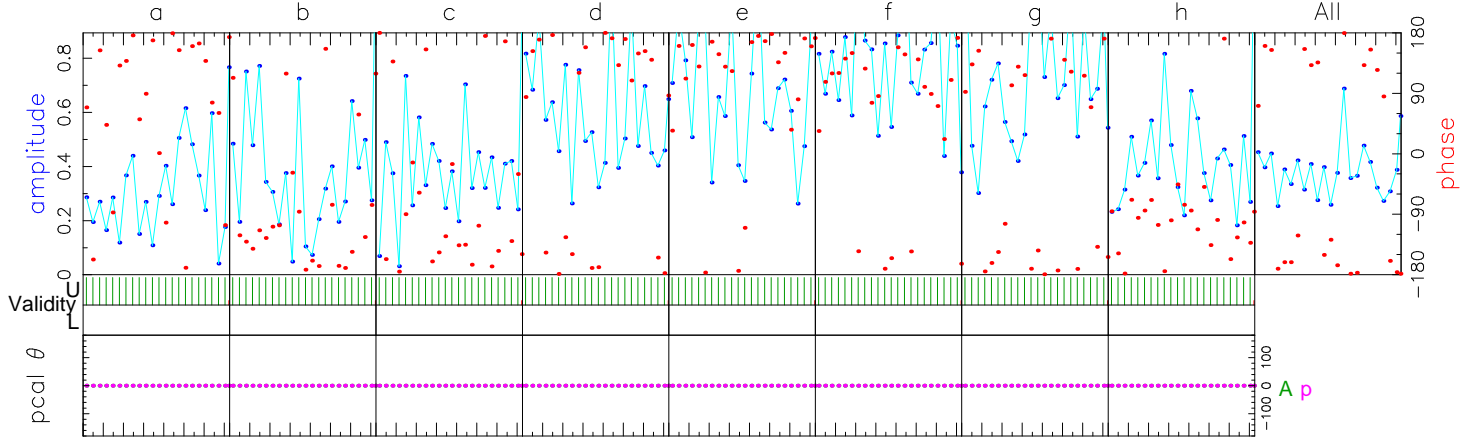


delay rate (ns/s)



Exp. mg006b
 Exper # 16383
 Yr:day 2021:115
 Start 231500.00
 Stop 232159.84
 FRT 231830.00
 Corr/FF/build
 2022:023:120903
 2022:024:142648
 2021:298:085625
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 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	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
A	0	0	0	0	0	0	0	0		
p	0	0	0	0	0	0	0	0		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000	1000	1000	1000	1000		
p	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	W04UY	W05UY	W06UY	W07UY		
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-3.59954520598E+03	Apriori delay (usec)	-3.59954538905E+03	Resid mbdelay (usec)	1.83072E-04	+/-	6.5E-05
Sband delay (usec)	-3.59954437480E+03	Apriori clock (usec)	-2.1131157E+03	Resid sbdelay (usec)	1.01425E-03	+/-	5.2E-04
Phase delay (usec)	-3.59954538358E+03	Apriori clockrate (us/s)	-2.1000000E-07	Resid phdelay (usec)	5.47476E-06	+/-	2.2E-07
Delay rate (us/s)	-7.95635520762E-01	Apriori rate (us/s)	-7.95635530638E-01	Resid rate (us/s)	9.87658E-09	+/-	9.1E-10
Total phase (deg)	-122.9	Apriori accel (us/s/s)	-2.88913507418E-05	Resid phase (deg)	169.8	+/-	6.9

ph/seg (deg)	41.4	Theor.	16.5	Amplitude	0.298 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	41.8		28.7	Search (2048X32)	0.295	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	49.9		9.7	Inc. seg. avg.	0.365	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	56.3		16.9	Inc. frq. avg.	0.370	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
						Data rate(Mb/s):	2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 358.7 el 46.9 pa 178.8 p: az 101.9 el 52.4 pa -59.2 u,v (fr/asec) 4815.883 -8780.306 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mg006b/v1/1234/No0042/Ap..21EBC1 Output file: /Exps/mg006b/v1/1234/No0042/Ap.W.71.21EBC1