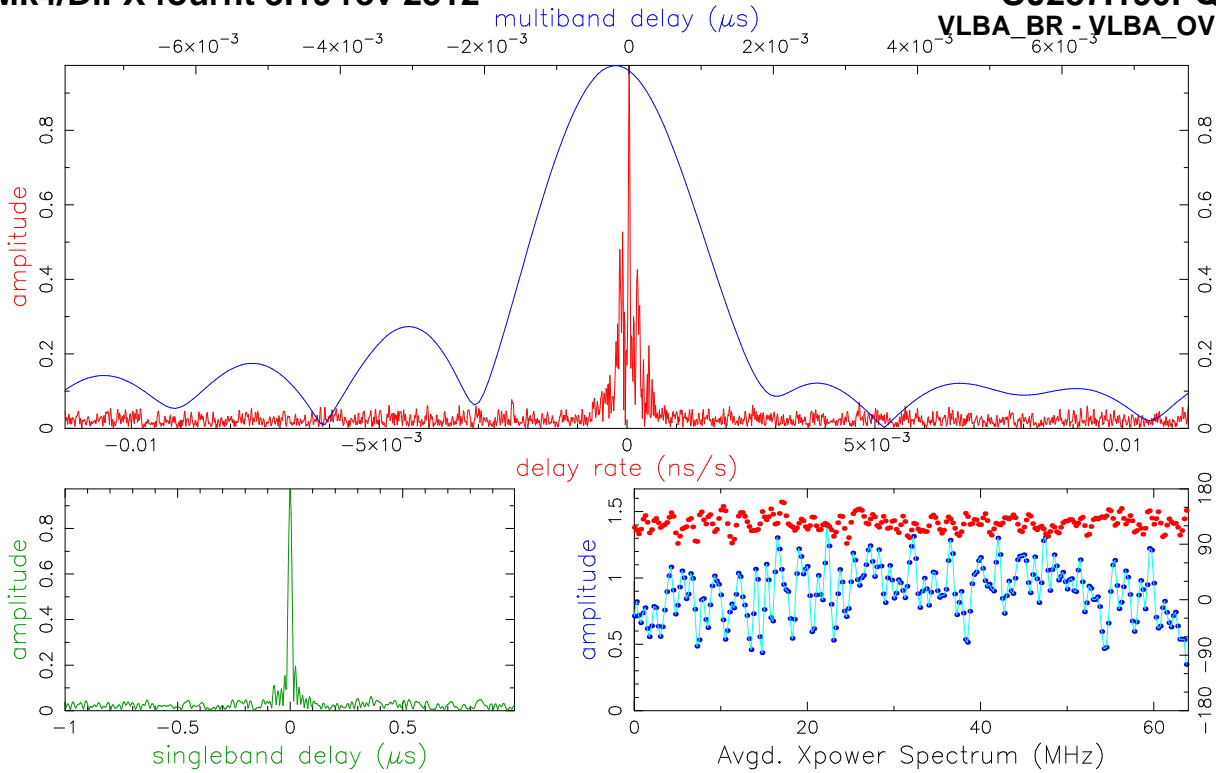


Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, bo
VLBA_BR - VLBA_OV, fgroup W, pol LL

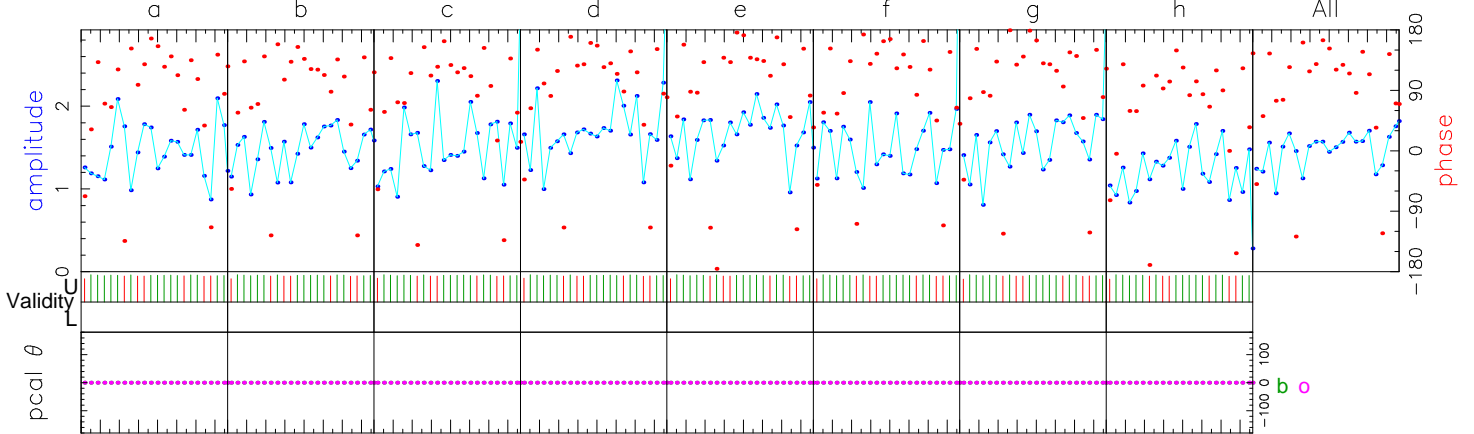


Fringe quality 4

SNR 54.7
Int time 421.860
Amp 0.974
Phase 122.4
PFD 0.0e+00
Delays (us)
SBD -0.000334
MBD -0.000197
Fringe rate (Hz) 0.003795
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

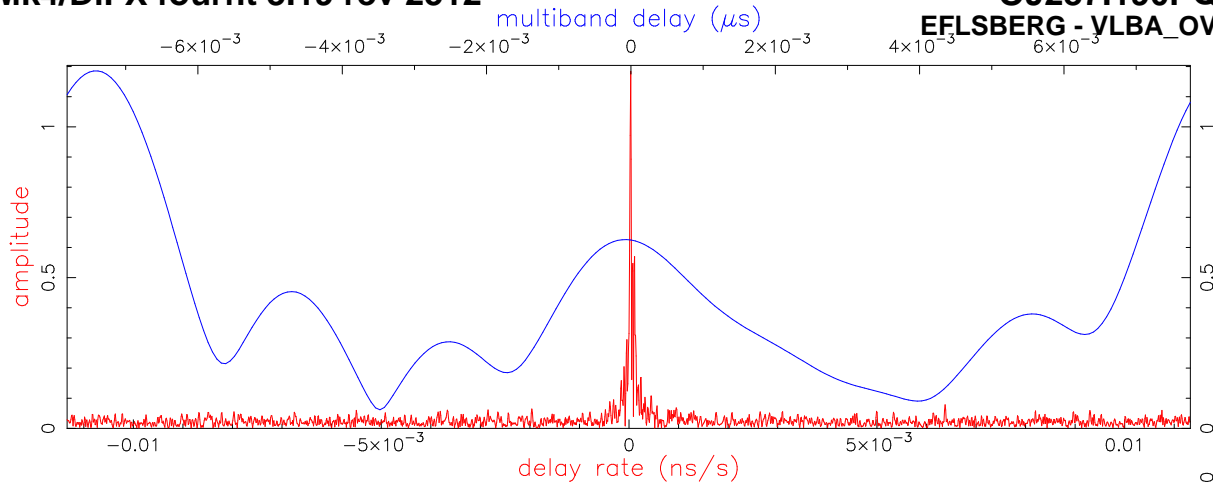
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210743
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



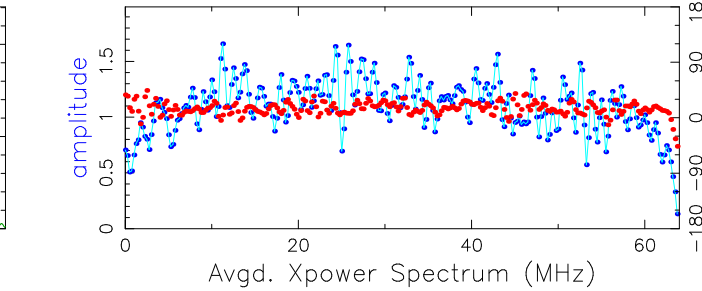
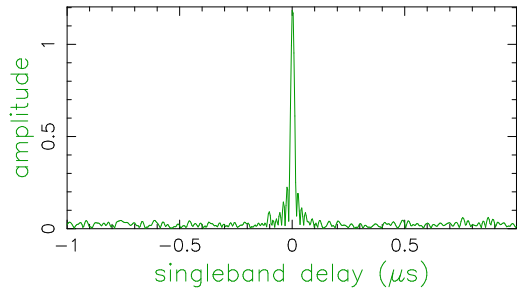
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	1.06082335021E+02		Apriori delay (usec)		1.06082532008E+02		Resid mbdelay (usec)		-1.96987E-04	+/- 2.0E-05
Sband delay (usec)	1.06082198508E+02		Apriori clock (usec)		-2.1506886E+01		Resid sbdelay (usec)		-3.33500E-04	+/- 1.6E-04
Phase delay (usec)	1.06082535956E+02		Apriori clockrate (us/s)		-2.4300001E-07		Resid phdelay (usec)		3.94784E-06	+/- 6.8E-08
Delay rate (us/s)	-1.77892255062E-01		Apriori rate (us/s)		-1.77892299115E-01		Resid rate (us/s)		4.40532E-08	+/- 2.7E-10
Total phase (deg)	233.0		Apriori accel (us/s/s)		4.71810546289E-06		Resid phase (deg)		122.4	+/- 2.1

ph/seg (deg) 59.6 5.0 Search (2048X32) 0.957 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 55.1 8.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 13.5 3.0 Inc. seg. avg. 1.464 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 9.4 5.2 Inc. frq. avg. 0.991 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
b: az 83.5 el 21.4 pa -44.9 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 1090.375 1291.659 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/bo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/bo.W.12.190PQ9



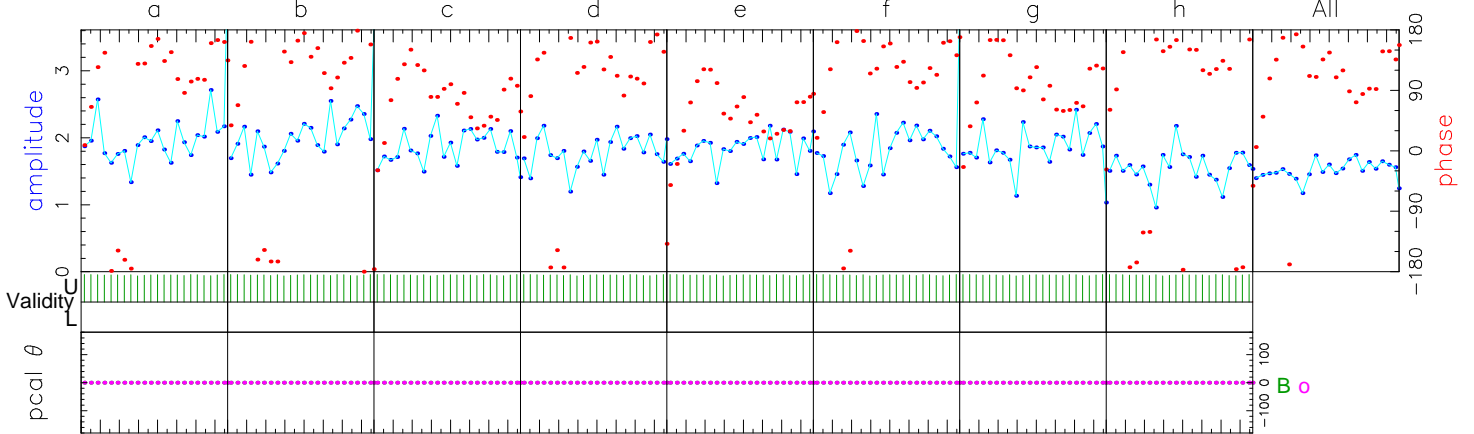
Fringe quality 4

SNR 68.4
Int time 431.728
Amp 1.204
Phase 118.9
PFD 0.0e+00
Delays (us)
SBD 0.001670
MBD -0.007354
Fringe rate (Hz)
0.003071
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



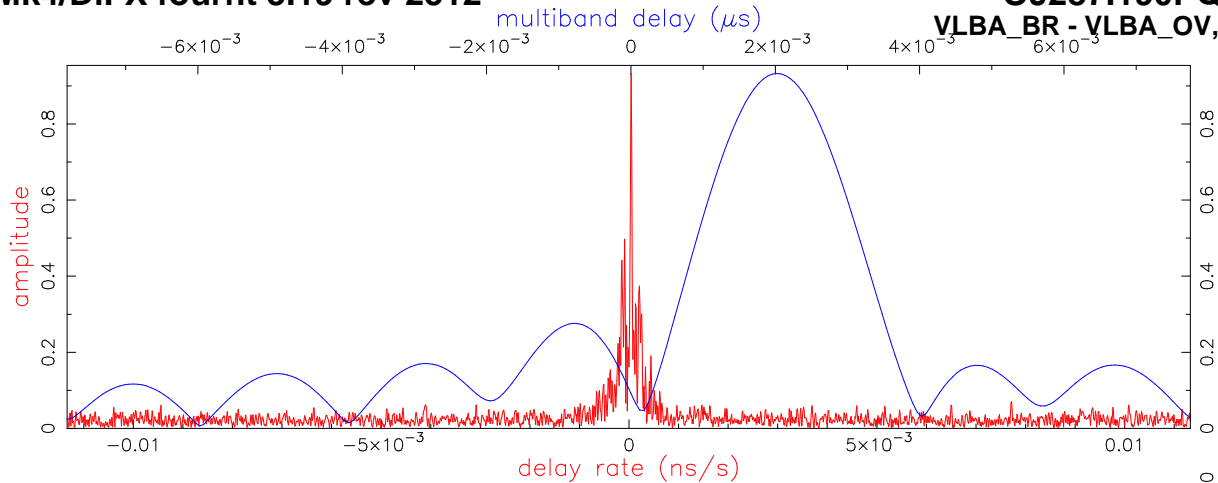
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210744
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



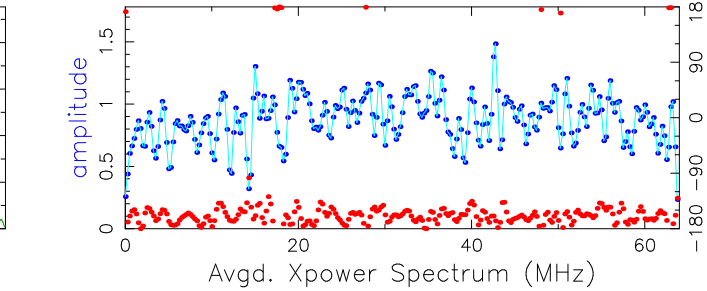
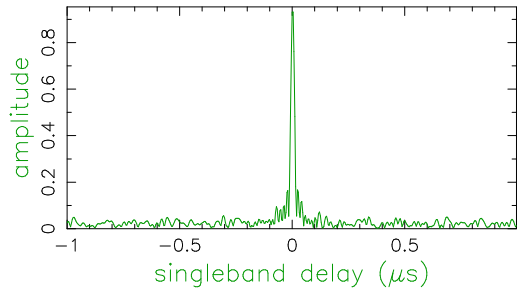
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	137.6	148.1	79.9	136.4	55.1	133.3	97.6	155.7	Phase	118.9
B	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.2	Ampl.	1.4
o	257.7	257.3	257.7	258.1	257.9	258.0	257.9	258.5	Sbd box	257.4
B	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B: o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B: o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	6.23413473831E+03		Apriori delay (usec)		6.23412646733E+03		Resid mbdelay (usec)		-7.35401E-03	+/- 1.6E-05
Sband delay (usec)	6.23412813733E+03		Apriori clock (usec)		-7.0560722E+07		Resid sbdelay (usec)		1.67000E-03	+/- 1.3E-04
Phase delay (usec)	6.23412647116E+03		Apriori clockrate (us/s)		-4.0100001E-07		Resid phdelay (usec)		3.83275E-06	+/- 5.4E-08
Delay rate (us/s)	-1.82241606071E+00		Apriori rate (us/s)		-1.82241609636E+00		Resid rate (us/s)		3.56475E-08	+/- 2.1E-10
Total phase (deg)	81.3		Apriori accel (us/s/s)		-2.67356981618E-05		Resid phase (deg)		118.9	+/- 1.7

ph/seg (deg) 42.1 4.0 Search (2048X32) 1.167 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 28.6 7.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 39.0 2.4 Inc. seg. avg. 1.521 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 19.1 4.1 Inc. frq. avg. 1.414 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
B: az 247.8 el 42.4 pa 38.8 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 11061.430 562.954 simultaneous interpolator



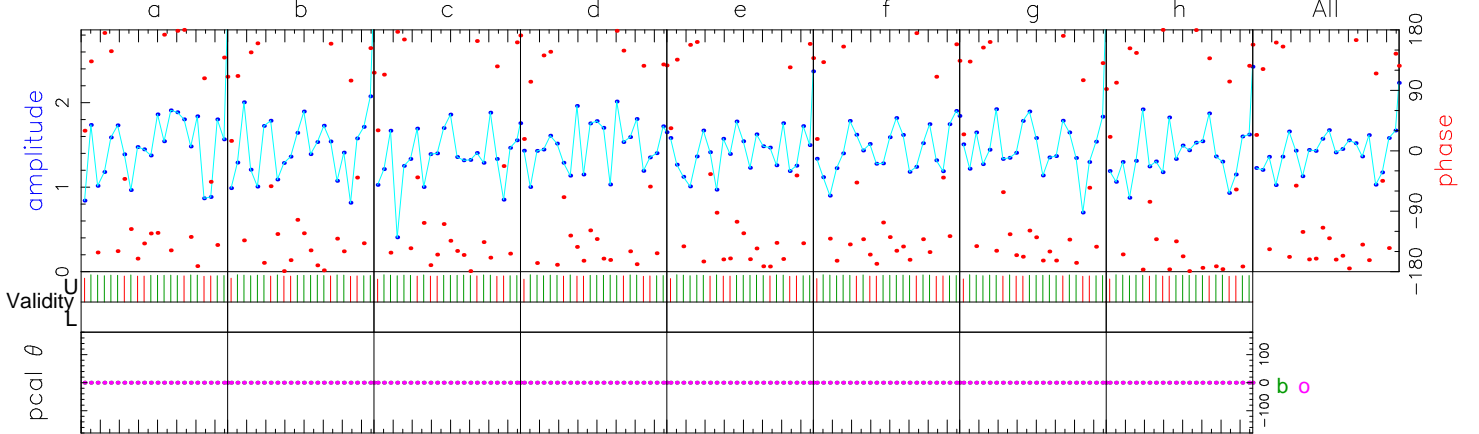
Fringe quality 5

SNR 53.6
Int time 421.858
Amp 0.954
Phase -160.8
PFD 0.0e+00
Delays (us)
SBD 0.001942
MBD 0.002069
Fringe rate (Hz)
0.003794
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

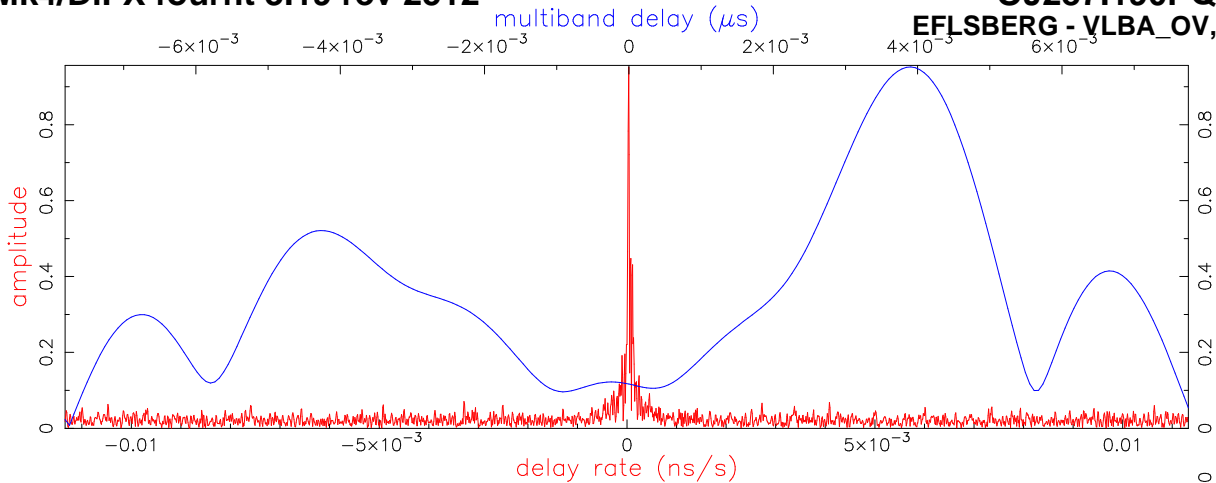


Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210747
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

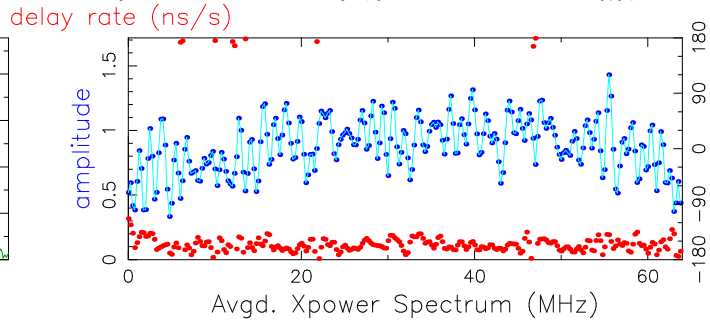
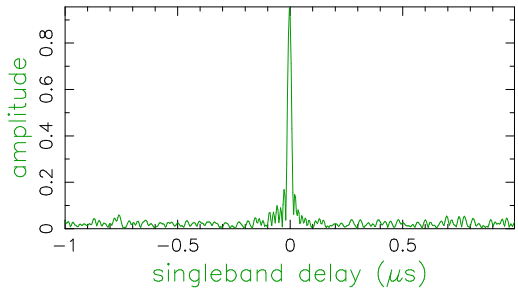


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
b	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.06084601209E+02			1.06082532008E+02				2.06920E-03	+/- 2.0E-05
Sband delay (usec)		1.06084474008E+02			-2.1506886E+01				1.94200E-03	+/- 1.6E-04
Phase delay (usec)		1.06082526822E+02			-2.4300001E-07				-5.18690E-06	+/- 6.9E-08
Delay rate (us/s)		-1.77892255076E-01			-1.77892299115E-01				4.40390E-08	+/- 2.7E-10
Total phase (deg)			-50.3		4.71810546289E-06				-160.8	+/- 2.1
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-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
ph/seg (deg)	59.9	5.1			0.954 +/- 0.018					
amp/seg (%)	51.8	8.9			0.000					
ph/frq (deg)	9.9	3.0			1.402					
amp/frq (%)	4.5	5.3			0.941					
b: az 83.5 el 21.4 pa -44.9										
o: az 80.2 el 20.9 pa -56.7										
u,v (fr/asec)					1090.375	1291.659				
Control file: cf_1234_gmva										
Input file: /Exps/c201c/v1/1234/No0034/bo..190PQ9										
Output file: /Exps/c201c/v1/1234/No0034/bo.W.29.190PQ9										



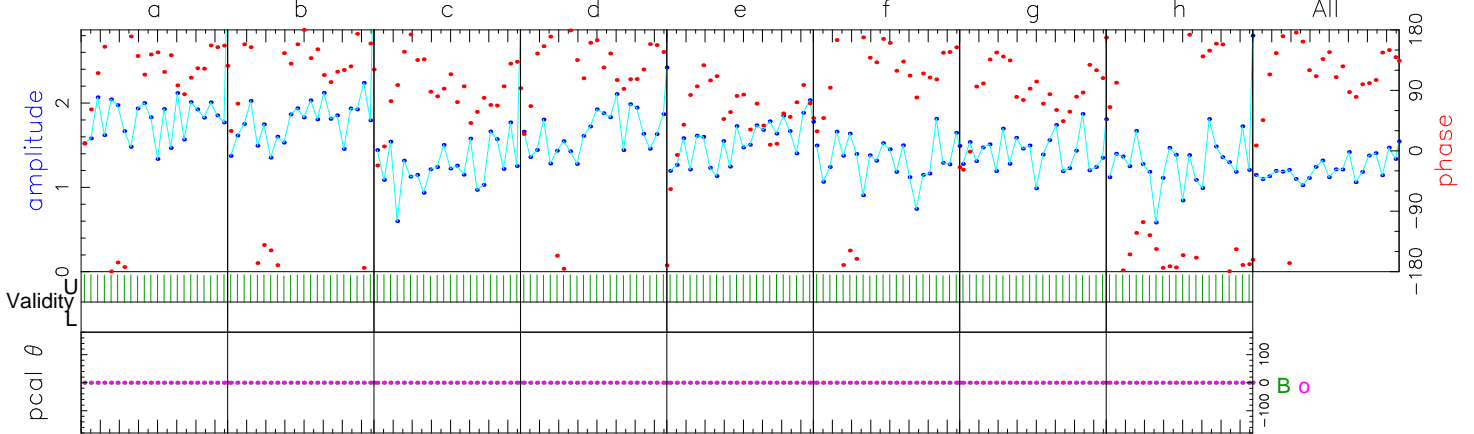
Fringe quality 3

SNR 54.3
Int time 431.726
Amp 0.956
Phase 124.1
PFD 0.0e+00
Delays (us)
SBD -0.002997
MBD 0.003920
Fringe rate (Hz)
0.003068
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



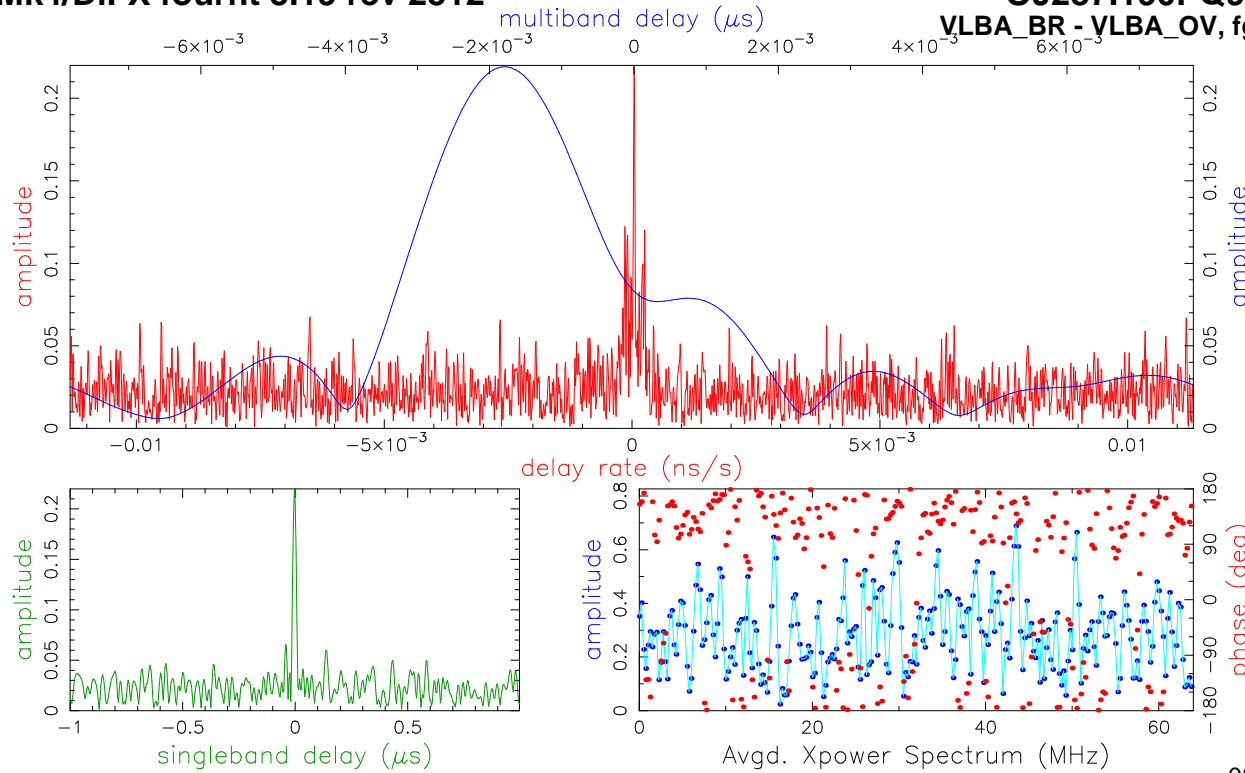
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210749
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
	134.4	149.5	89.9	136.0	60.8	138.1	90.2	-175.4	Phase	124.1
	1.4	1.4	0.9	1.3	1.2	1.0	1.1	1.0	Ampl.	1.2
	256.4	256.0	256.8	256.6	257.0	257.0	257.3	257.2	Sbd box	256.2
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	6.23413038684E+03		Apriori delay (usec)		6.23412646733E+03		Resid mbdelay (usec)		3.91952E-03	+/- 2.0E-05
Sband delay (usec)	6.23412347008E+03		Apriori clock (usec)		-7.0560722E-07		Resid sbdelay (usec)		-2.99725E-03	+/- 1.6E-04
Phase delay (usec)	6.23412647133E+03		Apriori clockrate (us/s)		-4.0100001E-07		Resid phdelay (usec)		4.00079E-06	+/- 6.8E-08
Delay rate (us/s)	-1.82241606074E+00		Apriori rate (us/s)		-1.82241609636E+00		Resid rate (us/s)		3.56178E-08	+/- 2.7E-10
Total phase (deg)	86.5		Apriori accel (us/s/s)		-2.67356981618E-05		Resid phase (deg)		124.1	+/- 2.1

ph/seg (deg) 42.0 5.1 Search (2048X32) 0.941 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 29.9 8.8 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 3.0 Inc. seg. avg. 1.210 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 29.0 5.2 Inc. frq. avg. 1.168 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
B: az 247.8 el 42.4 pa 38.8 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 11061.430 562.954 simultaneous interpolator

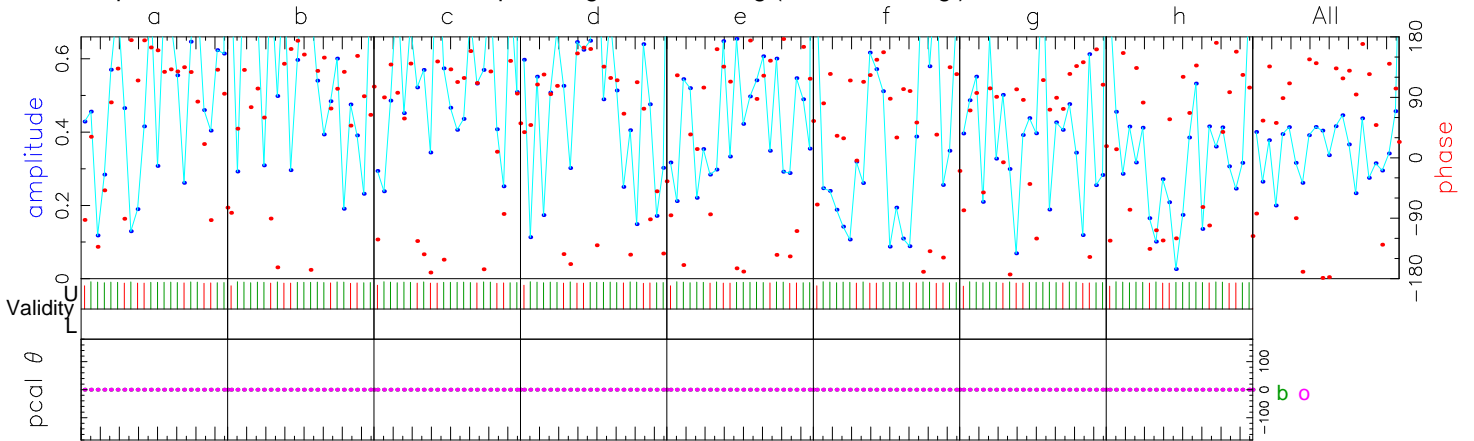


Fringe quality 9

SNR 12.4
Int time 421.858
Amp 0.220
Phase 135.1
PFD 2.4e-26
Delays (us)
SBD -0.003122
MBD -0.001765
Fringe rate (Hz) 0.003511
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

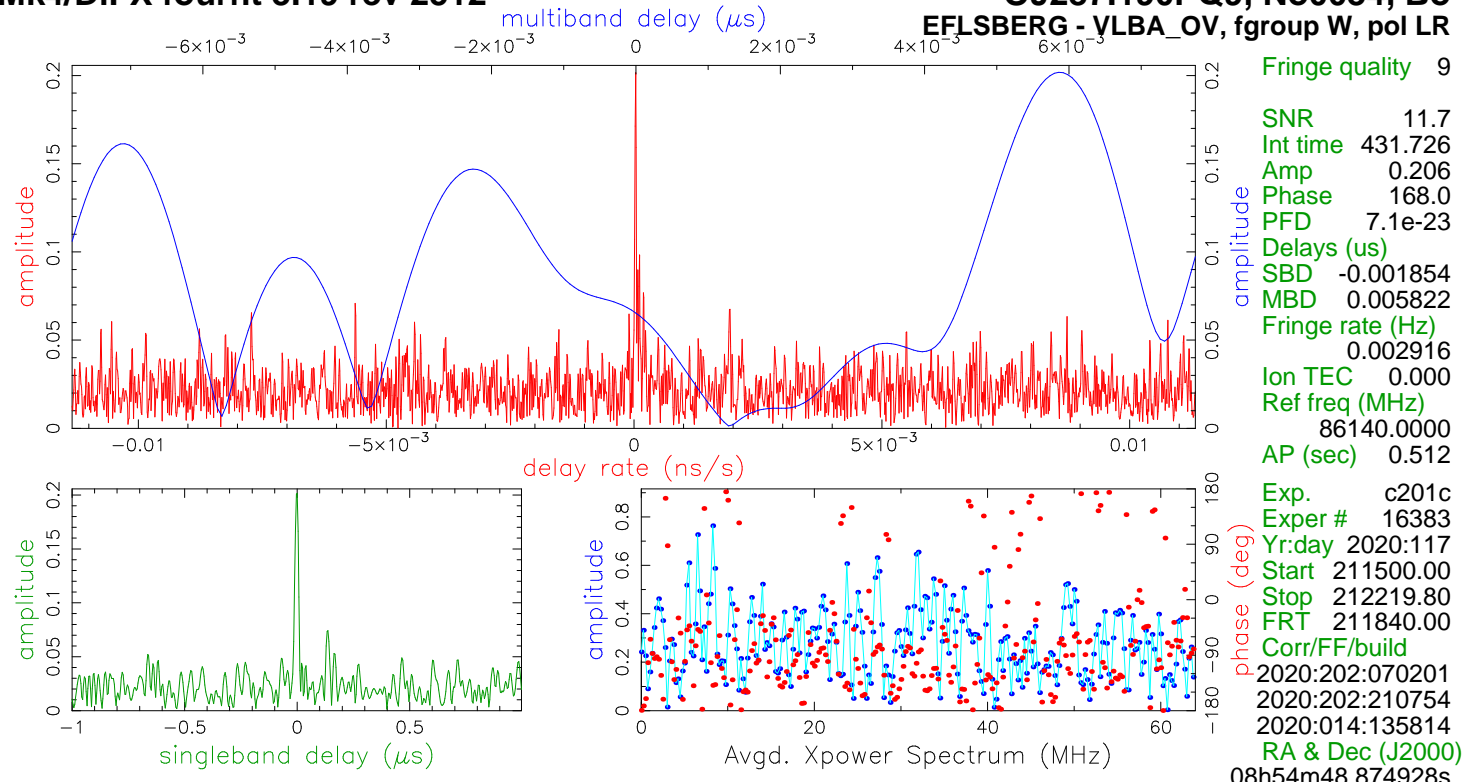
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210753
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

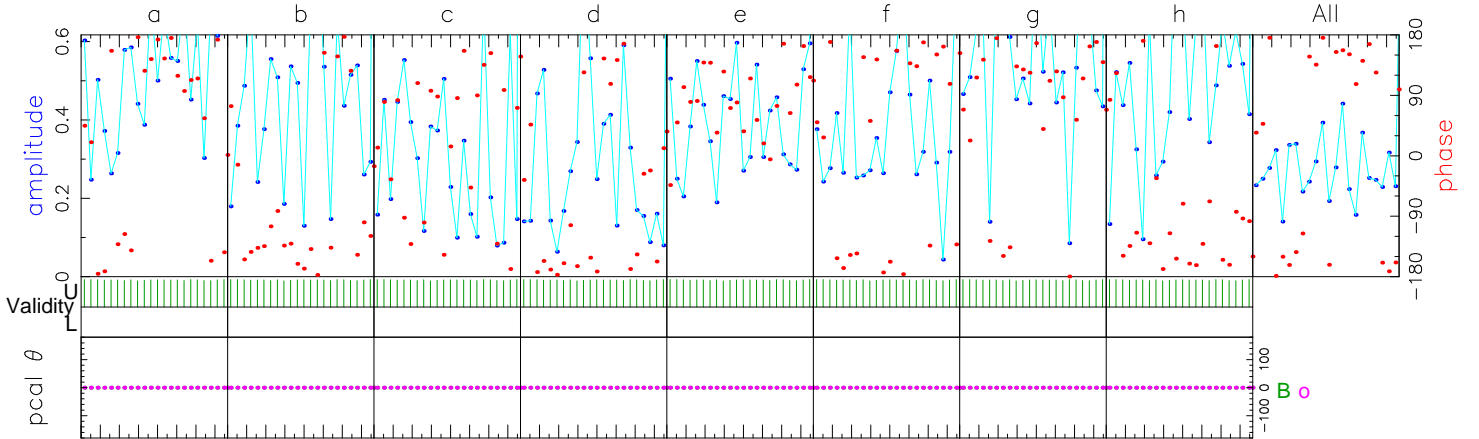


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	126.7	128.5	142.7	144.4	162.2	124.6	106.8	132.4	Phase	135.1
	0.3	0.3	0.4	0.2	0.2	0.1	0.2	0.1	Ampl.	0.2
	255.7	256.3	256.5	256.5	256.7	181.6	133.1	80.9	Sbd box	256.2
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
b	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.06080767115E+02		Apriori delay (usec)		1.06082532008E+02		Resid mbdelay (usec)		-1.76489E-03	+/- 8.8E-05
Sband delay (usec)	1.06079409758E+02		Apriori clock (usec)		-2.1506886E+01		Resid sbdelay (usec)		-3.12225E-03	+/- 7.0E-04
Phase delay (usec)	1.06082536366E+02		Apriori clockrate (us/s)		-2.4300001E-07		Resid phdelay (usec)		4.35768E-06	+/- 3.0E-07
Delay rate (us/s)	-1.77892258356E-01		Apriori rate (us/s)		-1.77892299115E-01		Resid rate (us/s)		4.07598E-08	+/- 1.2E-09
Total phase (deg)	245.7		Apriori accel (us/s/s)		4.71810546289E-06		Resid phase (deg)		135.1	+/- 9.3

ph/seg (deg) 60.5 22.2 Search (2048X32) 0.214 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 69.4 38.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 17.9 13.1 Inc. seg. avg. 0.328 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.2 22.9 Inc. frq. avg. 0.221 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 83.5 el 21.4 pa -44.9 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 1090.375 1291.659 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/bo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/bo.W.56.190PQ9



Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

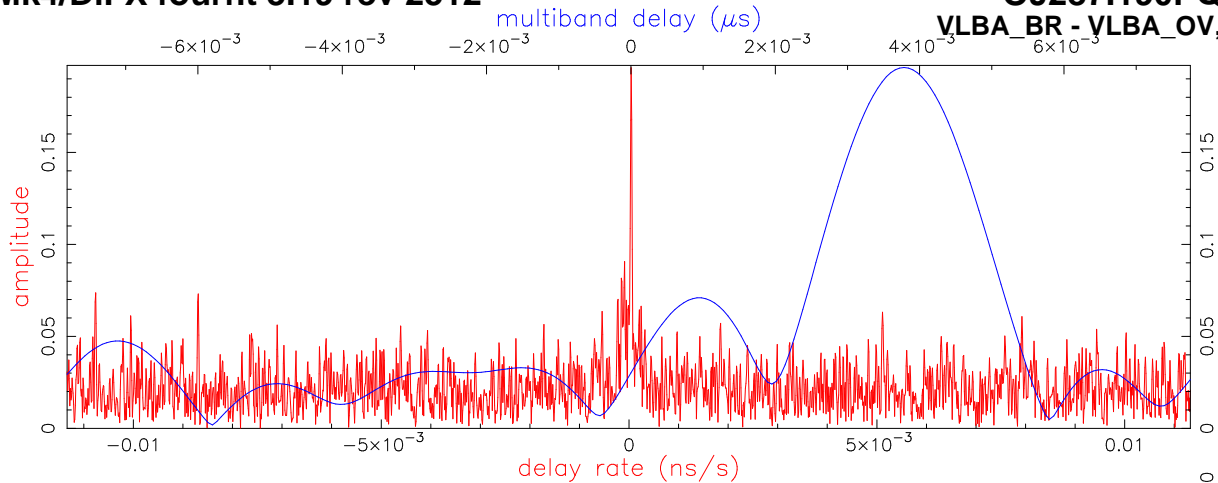


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
158.9	-152.7	138.5	176.5	85.9	176.9	133.3	-134.3	158.9	Phase	168.0
0.3	0.3	0.1	0.2	0.3	0.3	0.4	0.4	0.3	Ampl.	0.3
257.7	256.5	371.8	256.9	257.0	256.7	258.0	258.6	257.7	Sbd box	256.5
U/L 859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
B 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:o 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:o 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o 1000	1000	1000	1000	1000	1000	1000	1000	1000		
B W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids	
o W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	6.23413228963E+03		Apriori delay (usec)	6.23412646733E+03		Resid mbdelay (usec)	5.82230E-03	+/-	9.3E-05	
Sband delay (usec)	6.23412461383E+03		Apriori clock (usec)	-7.0560722E+00		Resid sbdelay (usec)	-1.85350E-03	+/-	7.4E-04	
Phase delay (usec)	6.23412647275E+03		Apriori clockrate (us/s)	-4.0100001E-07		Resid phdelay (usec)	5.41912E-06	+/-	3.2E-07	
Delay rate (us/s)	-1.82241606251E+00		Apriori rate (us/s)	-1.82241609636E+00		Resid rate (us/s)	3.38549E-08	+/-	1.2E-09	
Total phase (deg)		130.5	Apriori accel (us/s/s)	-2.67356981618E-05		Resid phase (deg)	168.0	+/-	9.8	

	RMS	Theor.	Amplitude	0.206 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	50.4	23.5	Search (2048X32)	0.201	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	48.4	41.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	48.2	13.9	Inc. seg. avg.	0.251	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	50.6	24.2	Inc. frq. avg.	0.262	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

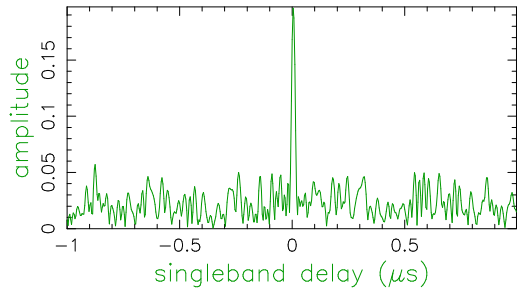
B: az 247.8 el 42.4 pa 38.8 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 11061.430 562.954 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Bo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Bo.W.60.190PQ9

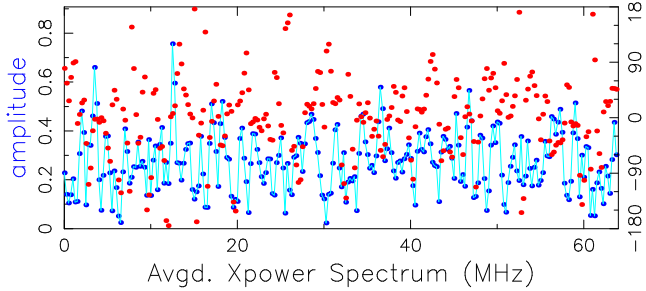


Fringe quality 9

SNR 11.1
Int time 421.860
Amp 0.197
Phase 15.4
PFD 7.2e-20
Delays (us)
SBD 0.004933
MBD 0.003819
Fringe rate (Hz) 0.004044
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

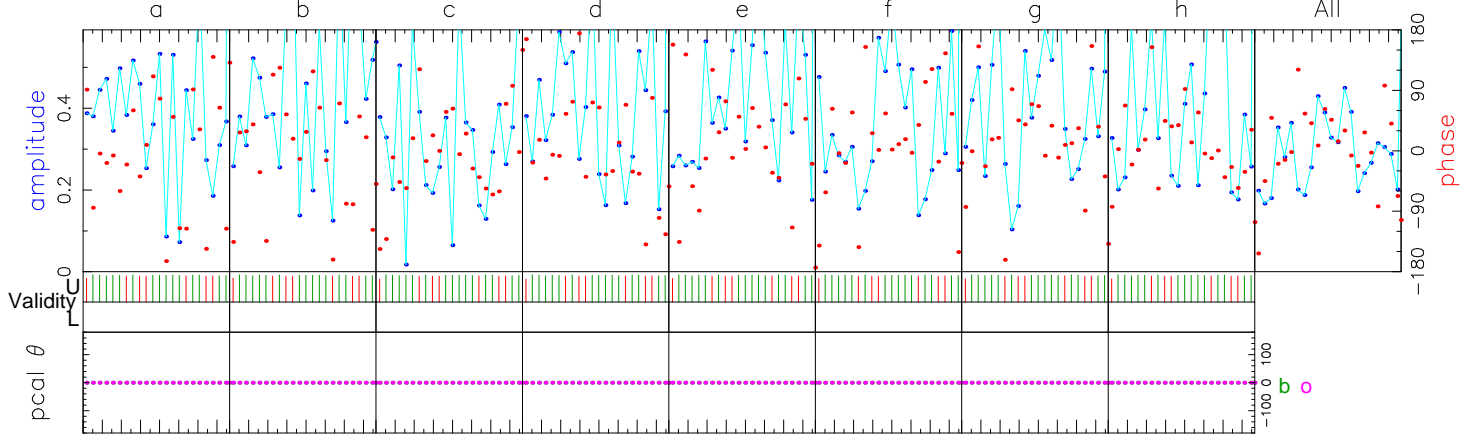


delay rate (ns/s)



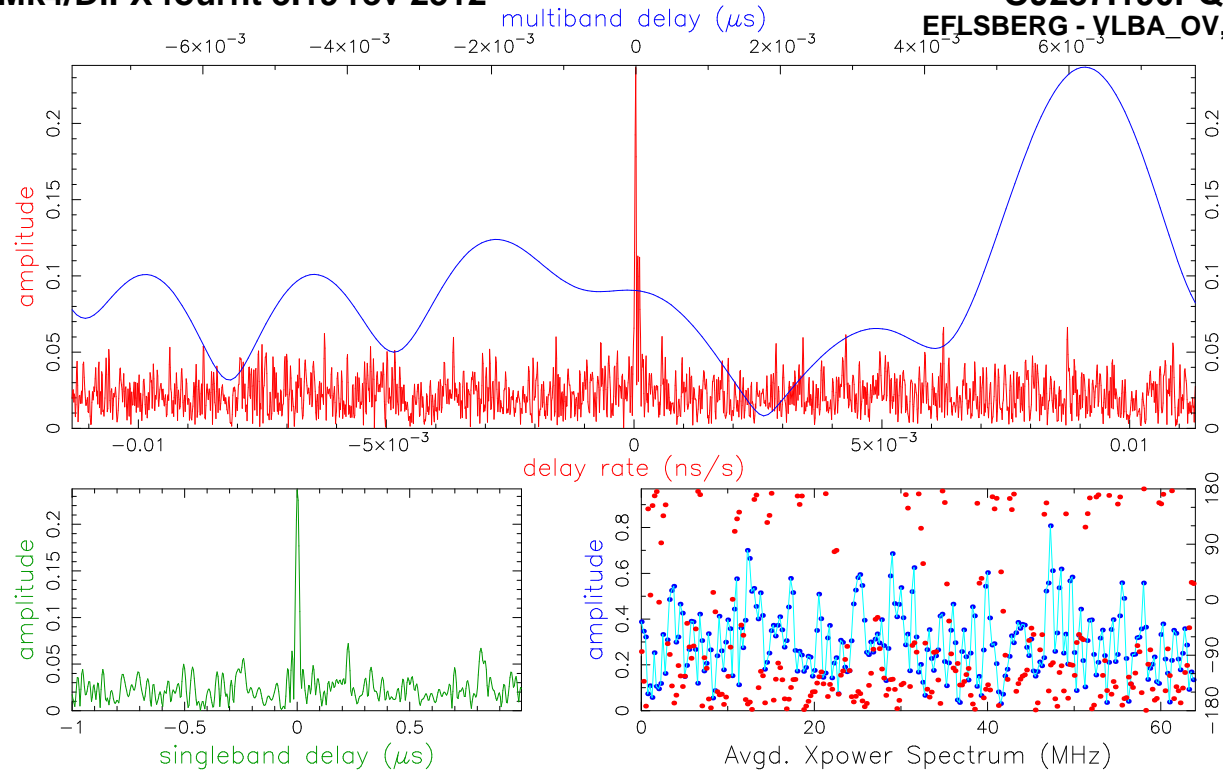
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210757
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
b	1000	1000	1000	1000	1000	1000	1000	1000	APs used	1000
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	1000
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	0:0
b:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	0:0
b	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	1000
o	1000	1000	1000	1000	1000	1000	1000	1000		1000
b	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	1.06086351490E+02		Apriori delay (usec)		1.06082532008E+02		Resid mbdelay (usec)		3.81948E-03	+/- 9.8E-05
Sband delay (usec)	1.06087465258E+02		Apriori clock (usec)		-2.1506886E+01		Resid sbdelay (usec)		4.93325E-03	+/- 7.8E-04
Phase delay (usec)	1.06082532506E+02		Apriori clockrate (us/s)		-2.4300001E-07		Resid phdelay (usec)		4.97498E-07	+/- 3.3E-07
Delay rate (us/s)	-1.77892252166E-01		Apriori rate (us/s)		-1.77892299115E-01		Resid rate (us/s)		4.69490E-08	+/- 1.3E-09
Total phase (deg)	126.0		Apriori accel (us/s/s)		4.71810546289E-06		Resid phase (deg)		15.4	+/- 10.3

ph/seg (deg) 58.4 24.8 Search (2048X32) 0.193 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.4 43.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 13.4 14.6 Inc. seg. avg. 0.263 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 19.2 25.5 Inc. frq. avg. 0.194 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 b: az 83.5 el 21.4 pa -44.9 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 1090.375 1291.659 simultaneous interpolator

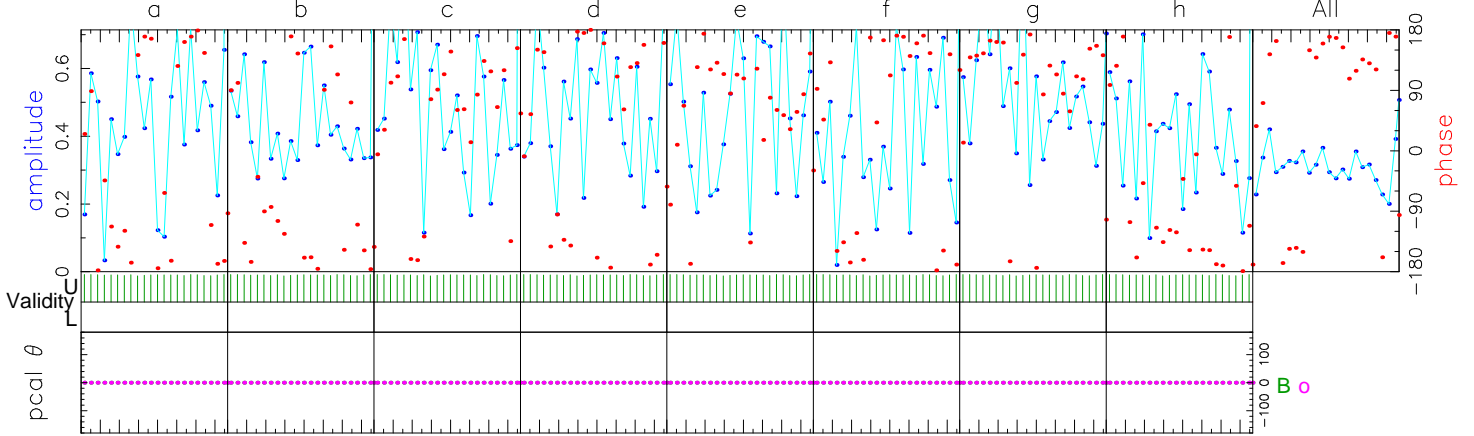


Fringe quality 9

SNR 13.5
Int time 431.728
Amp 0.238
Phase 155.6
PFD 6.1e-33
Delays (us)
SBD 0.000965
MBD 0.006261
Fringe rate (Hz) 0.002990
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

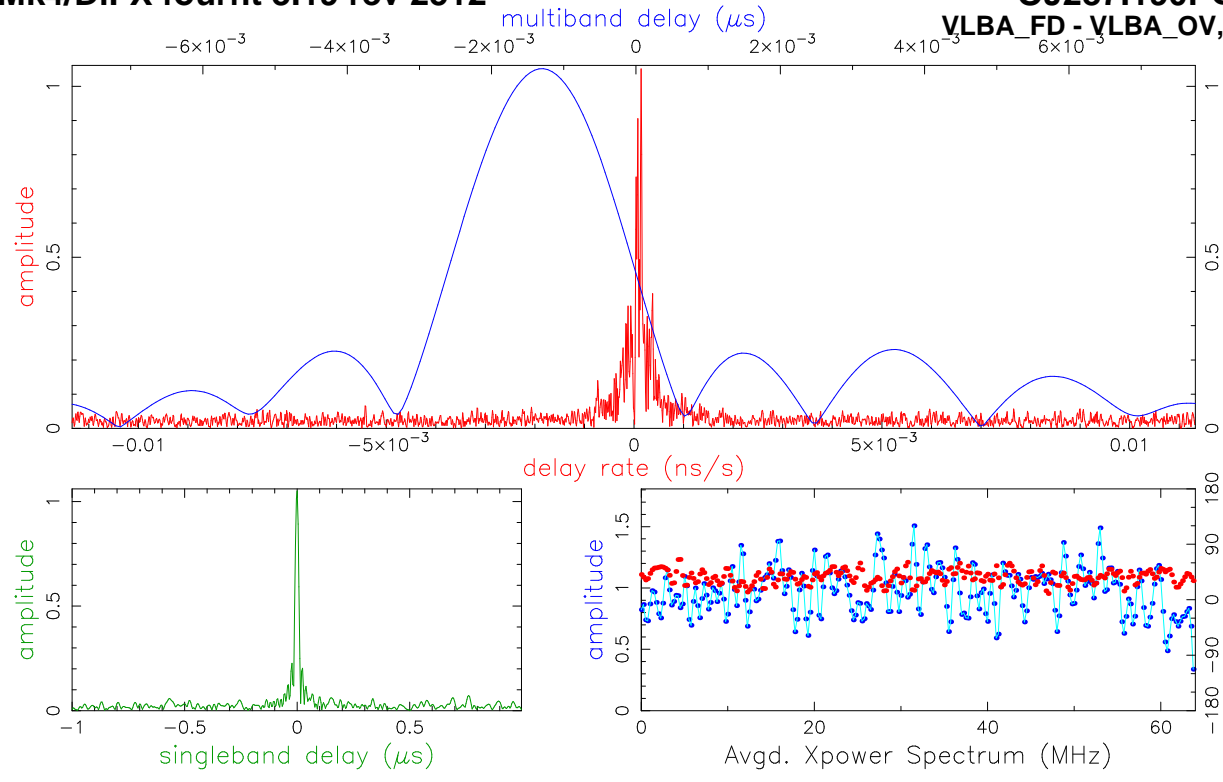
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build 2020:202:070201
2020:202:210758
2020:014:135814
RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	178.9	-169.1	114.8	166.6	87.0	170.3	136.5	-139.4	Phase	155.6
B	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.2	Ampl.	0.3
o	256.7	257.6	257.2	257.4	257.3	258.4	257.7	258.1	Sbd box	257.2
B	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B: o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B: o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.23413272809E+03		Apriori delay (usec)		6.23412646733E+03		Resid mbdelay (usec)		6.26077E-03	+/- 8.0E-05
Sband delay (usec)	6.23412743233E+03		Apriori clock (usec)		-7.0560722E-07		Resid sbdelay (usec)		9.65000E-04	+/- 6.4E-04
Phase delay (usec)	6.23412647234E+03		Apriori clockrate (us/s)		-4.0100001E-07		Resid phdelay (usec)		5.01737E-06	+/- 2.7E-07
Delay rate (us/s)	-1.82241606165E+00		Apriori rate (us/s)		-1.82241609636E+00		Resid rate (us/s)		3.47144E-08	+/- 1.1E-09
Total phase (deg)	118.0		Apriori accel (us/s/s)		-2.67356981618E-05		Resid phase (deg)		155.6	+/- 8.5

ph/seg (deg) 44.0 20.3 Search (2048X32) 0.234 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 36.8 35.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.7 12.0 Inc. seg. avg. 0.291 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 35.1 20.9 Inc. frq. avg. 0.291 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 247.8 el 42.4 pa 38.8 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 11061.430 562.954 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Bo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Bo.W.77.190PQ9

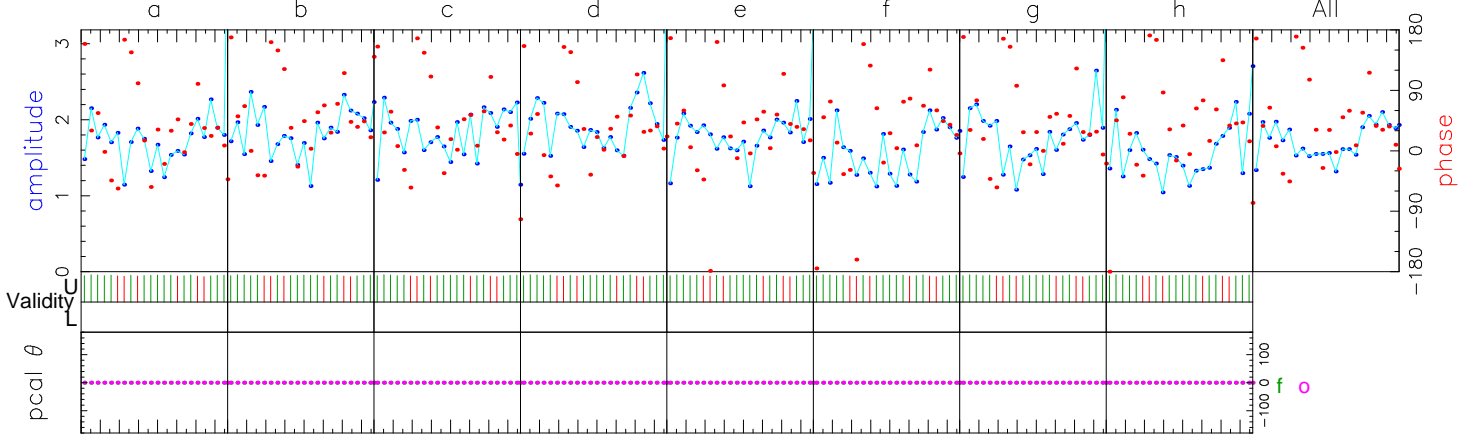


Fringe quality 5

SNR 59.7
Int time 423.033
Amp 1.061
Phase 38.1
PFD 0.0e+00
Delays (us)
SBD -0.001218
MBD -0.001334
Fringe rate (Hz) 0.012854
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210805
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

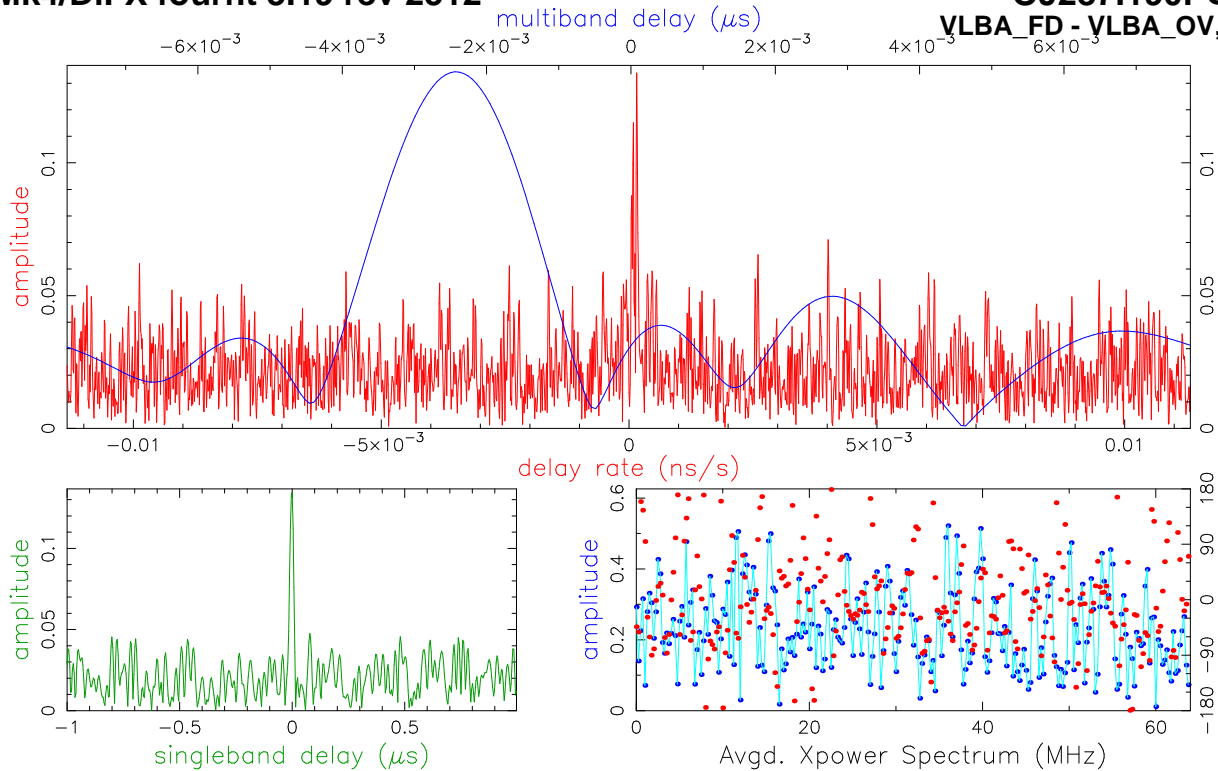


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	3.61217115706E+03		Apriori delay (usec)		3.61217249088E+03		Resid mbdelay (usec)		-1.33381E-03	+/- 1.8E-05
Sband delay (usec)	3.61217127238E+03		Apriori clock (usec)		-1.6187994E+01		Resid sbdelay (usec)		-1.21850E-03	+/- 1.4E-04
Phase delay (usec)	3.61217249210E+03		Apriori clockrate (us/s)		-9.2000002E-08		Resid phdelay (usec)		1.22900E-06	+/- 6.2E-08
Delay rate (us/s)	-1.54917177017E-02		Apriori rate (us/s)		-1.54918669267E-02		Resid rate (us/s)		1.49225E-07	+/- 2.4E-10
Total phase (deg)	169.1		Apriori accel (us/s/s)		-2.29790382731E-05		Resid phase (deg)		38.1	+/- 1.9

ph/seg (deg) 60.2 4.6 Search (2048X32) 1.061 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 65.7 8.0 Interp. 0.970 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 7.4 2.7 Inc. seg. avg. 1.716 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 8.1 4.7 Inc. frq. avg. 1.056 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 84.2 el 31.8 pa -65.7 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 57.460 -1452.617 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/fo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/fo.W.101.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, fo VLBA_FD - VLBA_OV, fgroup W, pol LR

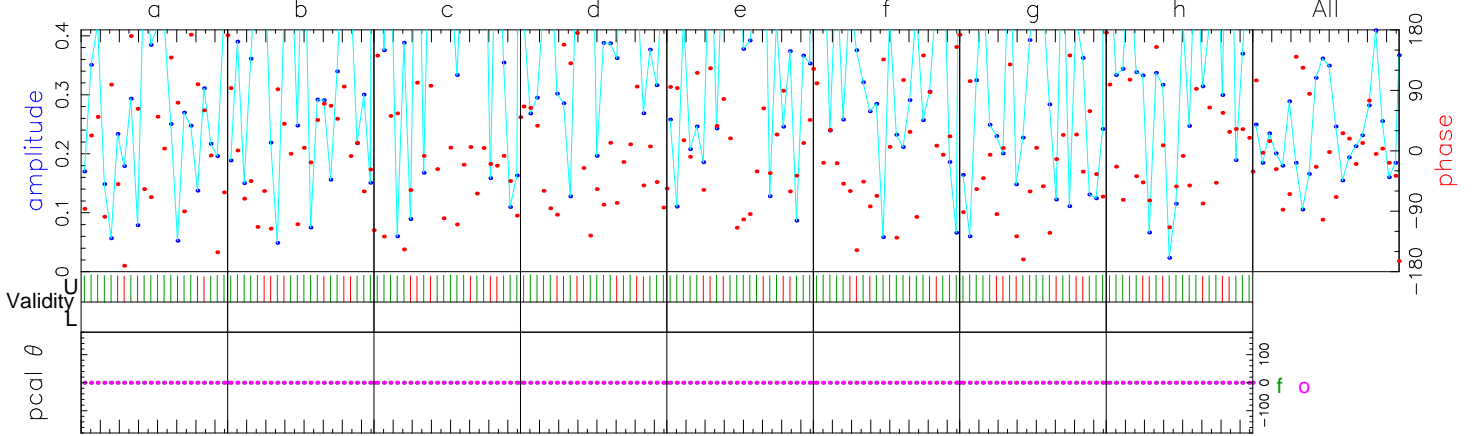


Fringe quality 9

SNR 7.7
 Int time 423.032
 Amp 0.137
 Phase -8.1
 PFD 4.9e-06
 Delays (us)
 SBD -0.001992
 MBD -0.002518
 Fringe rate (Hz)
 0.012984
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build
 2020:202:070201
 2020:202:210810
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

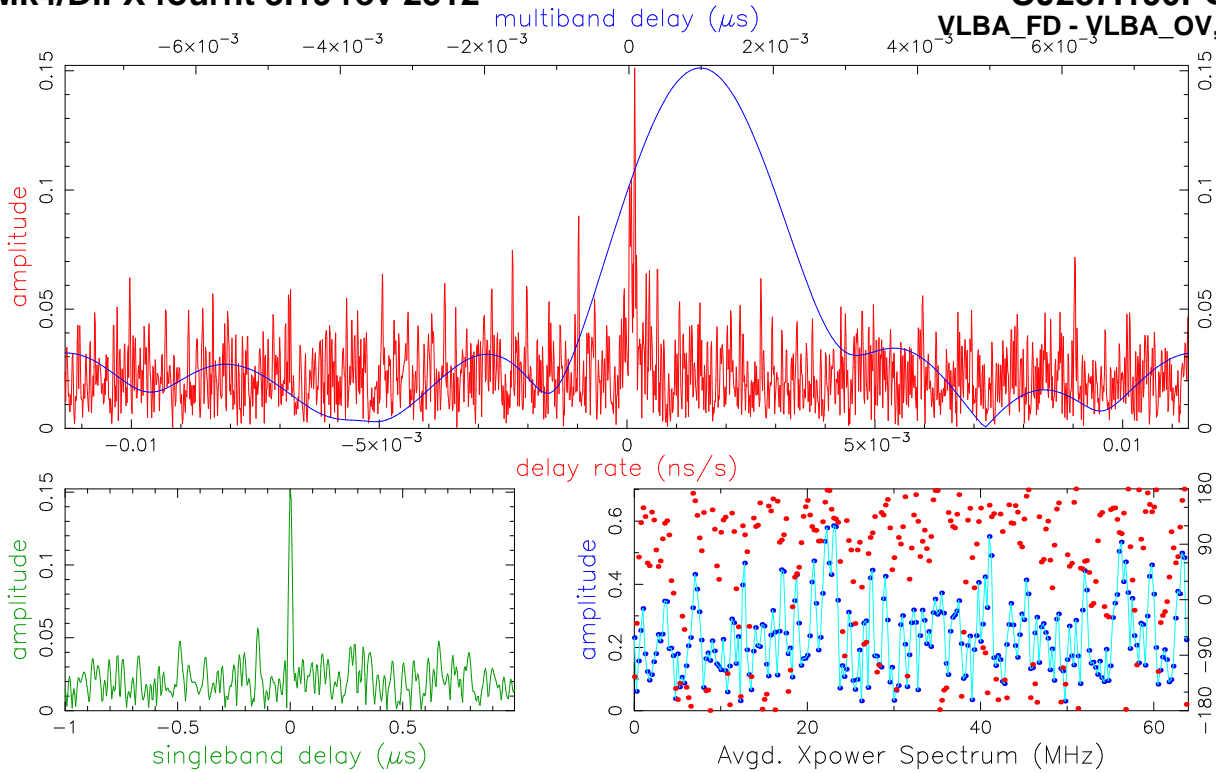


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-19.0	-3.7	-4.4	-45.7	22.6	-17.1	-30.0	16.9	Phase	-8.1
	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	Ampl.	0.1
	191.9	255.9	72.9	256.1	256.3	341.8	255.4	256.7	Sbd box	256.5
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
f:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.61216997290E+03		Apriori delay (usec)		3.61217249088E+03		Resid mbdelay (usec)		-2.51797E-03	+/- 1.4E-04
Sband delay (usec)	3.61217049888E+03		Apriori clock (usec)		-1.6187994E+01		Resid sbdelay (usec)		-1.99200E-03	+/- 1.1E-03
Phase delay (usec)	3.61217249061E+03		Apriori clockrate (us/s)		-9.2000002E-08		Resid phdelay (usec)		-2.62360E-07	+/- 4.8E-07
Delay rate (us/s)	-1.54917161917E-02		Apriori rate (us/s)		-1.54918669267E-02		Resid rate (us/s)		1.50735E-07	+/- 1.9E-09
Total phase (deg)	122.9		Apriori accel (us/s/s)		-2.29790382731E-05		Resid phase (deg)		-8.1	+/- 14.9

ph/seg (deg) 65.3 35.7 Search (2048X32) 0.129 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 89.8 62.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 24.8 21.1 Inc. seg. avg. 0.196 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.4 36.8 Inc. frq. avg. 0.135 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 84.2 el 31.8 pa -65.7 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 57.460 -1452.617 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/fo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/fo.W.119.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, fo VLBA_FD - VLBA_OV, fgroup W, pol RL

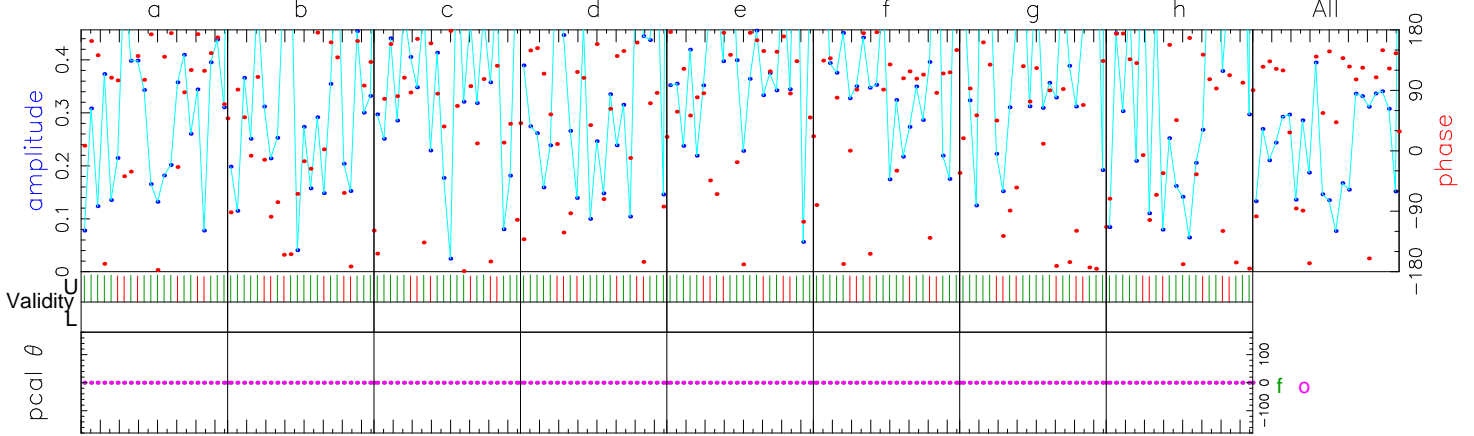


Fringe quality 9

SNR 8.6
 Int time 423.035
 Amp 0.152
 Phase 132.3
 PFD 4.0e-09
 Delays (us)
 SBD 0.001093
 MBD 0.001024
 Fringe rate (Hz) 0.012920
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build 2020:202:070201
 2020:202:210813
 2020:014:135814
 RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

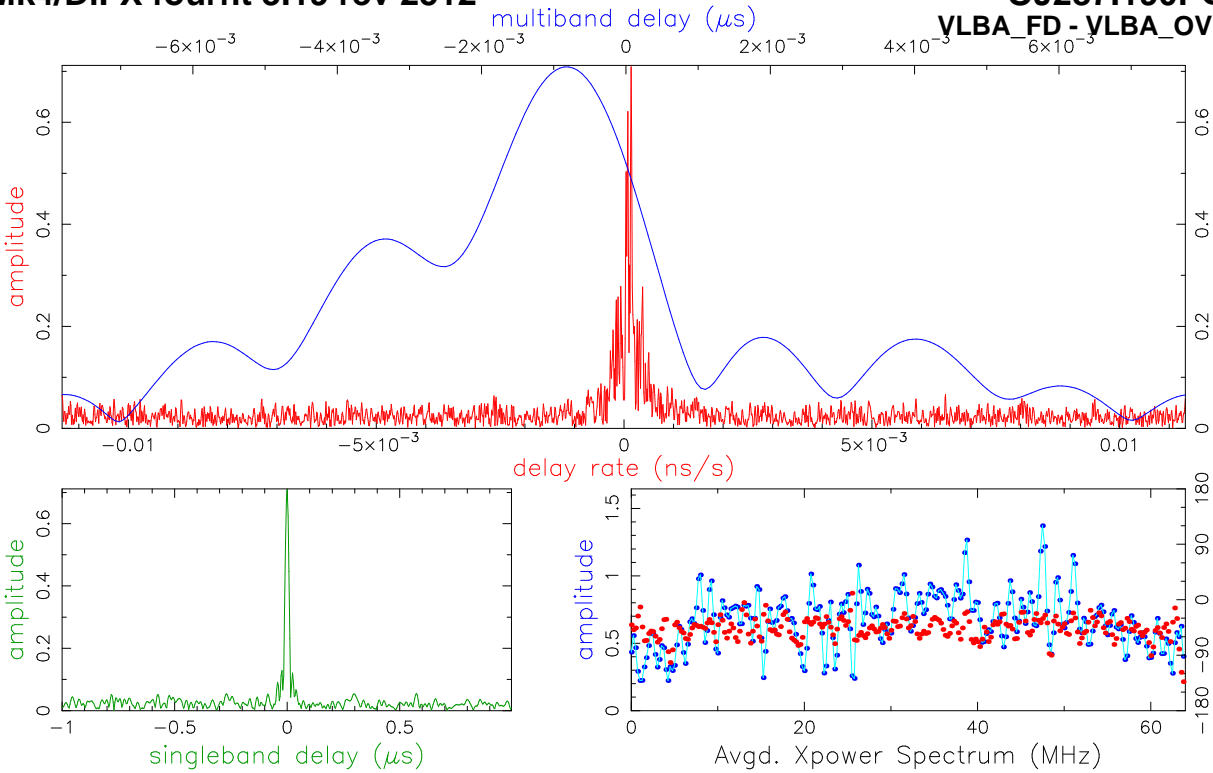
Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
f	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		3.61217351493E+03			3.61217249088E+03				1.02406E-03	+/- 1.3E-04
Sband delay (usec)		3.61217358388E+03			-1.6187994E+01				1.09300E-03	+/- 1.0E-03
Phase delay (usec)		3.61217249514E+03			-9.2000002E-08				4.26584E-06	+/- 4.3E-07
Delay rate (us/s)		-1.54917169371E-02			-1.54918669267E-02				1.49990E-07	+/- 1.7E-09
Total phase (deg)			263.3		-2.29790382731E-05				132.3	+/- 13.4
	RMS	Theor.	Amplitude	0.152 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	64.5	32.1	Search (2048X32)	0.142	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	82.2	56.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	14.2	18.9	Inc. seg. avg.	0.206	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	27.6	33.0	Inc. frq. avg.	0.145	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

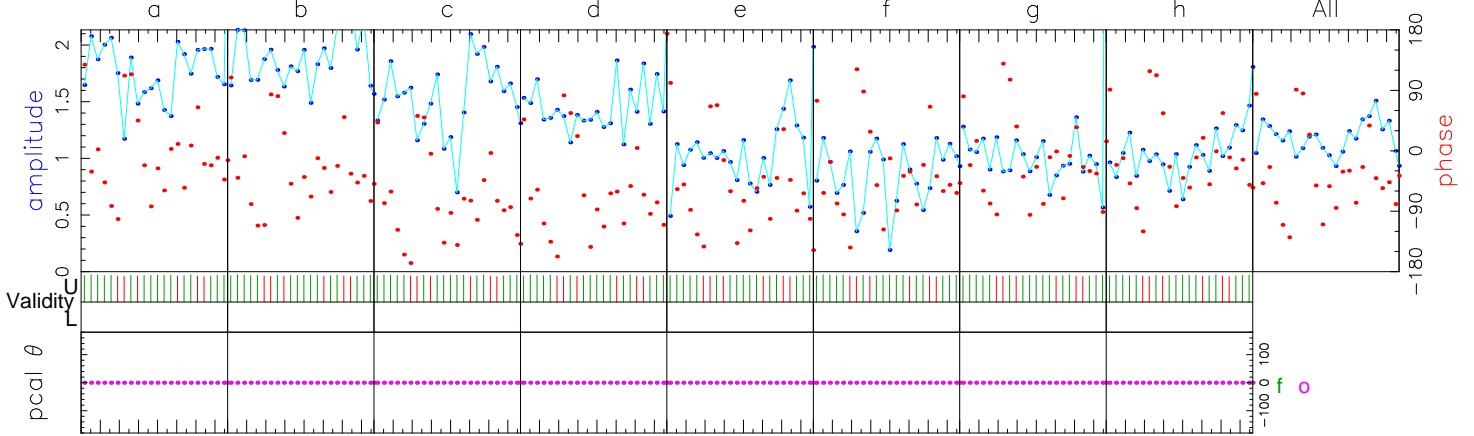
f: az 84.2 el 31.8 pa -65.7 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 57.460 -1452.617 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/fo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/fo.W.134.190PQ9



Fringe quality 4
 SNR 40.0
 Int time 423.034
 Amp 0.712
 Phase -44.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000813
 MBD -0.000836
 Fringe rate (Hz) 0.012877
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build
 2020:202:070201
 2020:202:210800
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

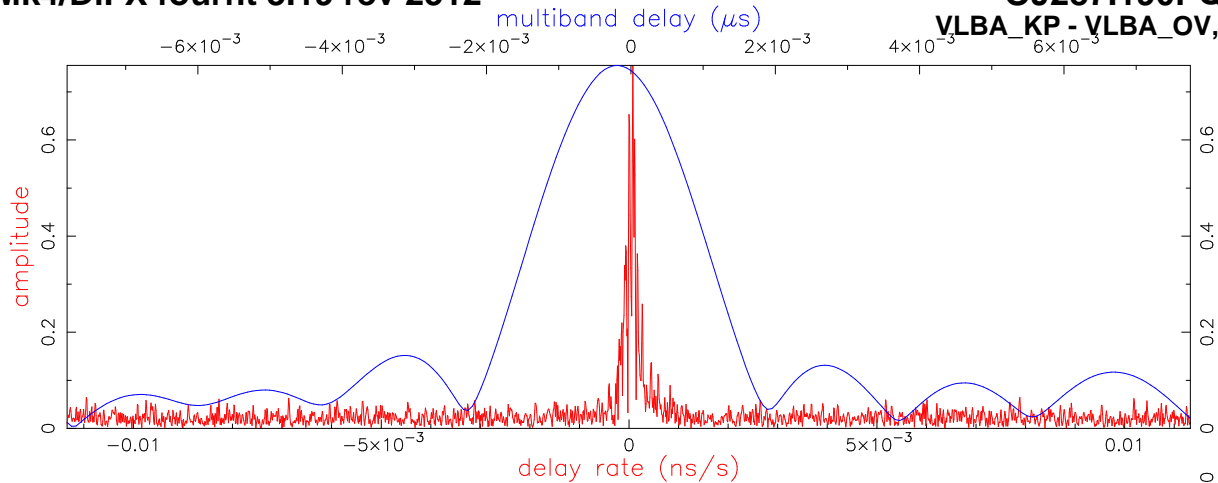


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-18.8	-34.1	-79.3	-74.3	-61.9	-49.3	-24.3	-18.2	Phase	-44.9
	1.0	1.1	0.9	0.8	0.6	0.5	0.6	0.6	Ampl.	0.8
	256.6	256.6	257.0	256.8	256.8	257.5	256.6	256.7	Sbd box	256.8
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
f:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
fo	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
f	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
f	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	3.61217165447E+03		Apriori delay (usec)		3.61217249088E+03		Resid mbdelay (usec)		-8.36409E-04	+/- 2.7E-05
Sband delay (usec)	3.61217167763E+03		Apriori clock (usec)		-1.6187994E+01		Resid sbdelay (usec)		-8.13250E-04	+/- 2.2E-04
Phase delay (usec)	3.61217248943E+03		Apriori clockrate (us/s)		-9.2000002E-08		Resid phdelay (usec)		-1.44810E-06	+/- 9.2E-08
Delay rate (us/s)	-1.54917174381E-02		Apriori rate (us/s)		-1.54918669267E-02		Resid rate (us/s)		1.49489E-07	+/- 3.6E-10
Total phase (deg)	86.1		Apriori accel (us/s/s)		-2.29790382731E-05		Resid phase (deg)		-44.9	+/- 2.9

RMS Theor. Amplitude 0.712 +/- 0.018
 ph/seg (deg) 62.1 6.9 Search (2048X32) 0.656 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.0 12.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 26.7 4.0 Inc. seg. avg. 1.182 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.4 7.1 Inc. frq. avg. 0.772 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 f: az 84.2 el 31.8 pa -65.7 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 57.460 -1452.617 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/fo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/fo.W.84.190PQ9

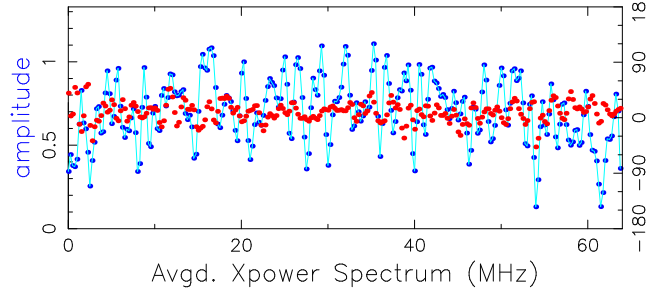
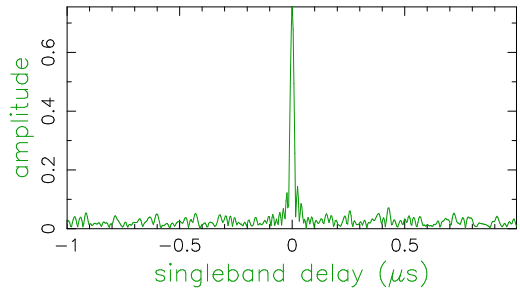
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, ko
VLBA_KP - VLBA_OV, fgroup W, pol RR



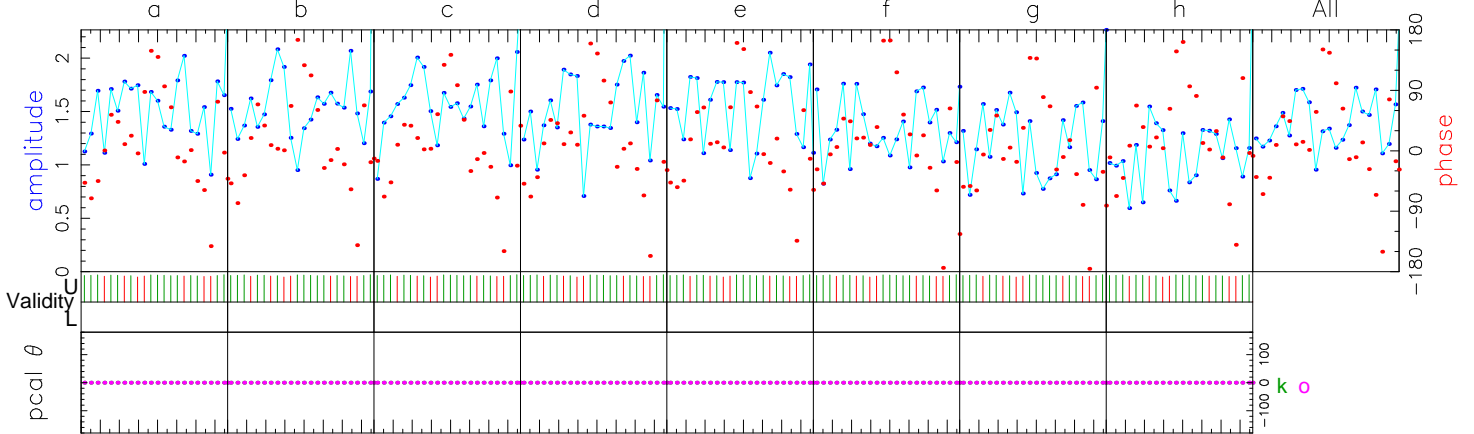
Fringe quality 7

SNR 42.4
Int time 421.493
Amp 0.755
Phase 8.8
PFD 0.0e+00
Delays (us)
SBD -0.000247
MBD -0.000198
Fringe rate (Hz)
0.007042
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210809
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

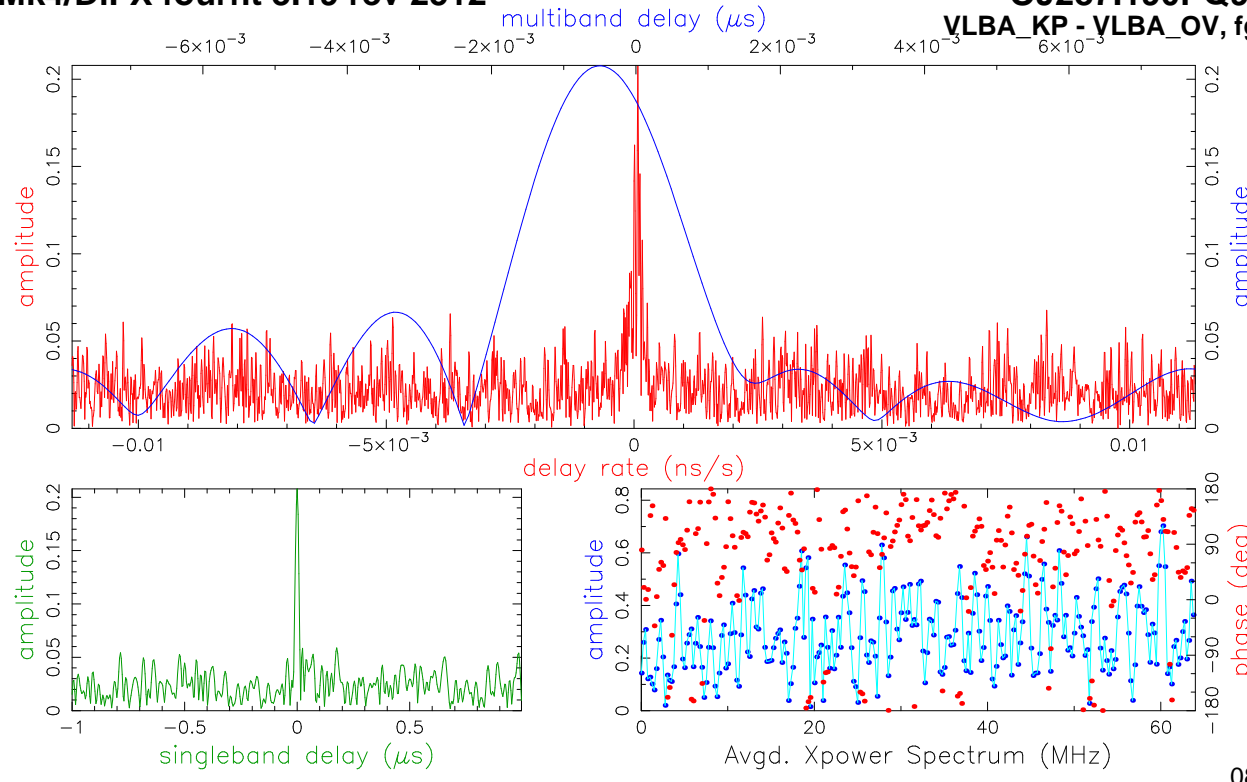


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0				
k	1000	1000	1000	1000	1000	1000	1000	1000				
o	1000	1000	1000	1000	1000	1000	1000	1000				
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
k	1000	1000	1000	1000	1000	1000	1000	1000				
o	1000	1000	1000	1000	1000	1000	1000	1000				
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
Group delay (usec)(sbd)		1.55637633497E+03				1.55637653266E+03			Resid mbdelay (usec)	-1.97689E-04 +/- 2.6E-05		
Sband delay (usec)		1.55637628566E+03				-2.0439131E+01			Resid sbdelay (usec)	-2.47000E-04 +/- 2.0E-04		
Phase delay (usec)		1.55637653294E+03				-1.9560001E-07			Resid phdelay (usec)	2.82338E-07 +/- 8.7E-08		
Delay rate (us/s)		3.43647109522E-02				3.43646292023E-02			Resid rate (us/s)	8.17498E-08 +/- 3.4E-10		
Total phase (deg)			197.0			-1.13085100078E-05			Resid phase (deg)	8.8 +/- 2.7		
RMS	68.8	6.5							PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	68.8	6.5	Search (2048X32)	0.706					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
amp/seg (%)	87.9	11.3	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
ph/frq (deg)	6.9	3.8	Inc. seg. avg.	1.374					Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
amp/frq (%)	13.6	6.7	Inc. frq. avg.	0.757					Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

k: az 81.4 el 25.5 pa -63.4 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) -227.294 -952.639 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/ko..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/ko.W.115.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, ko
VLBA_KP - VLBA_OV, fgroup W, pol LR

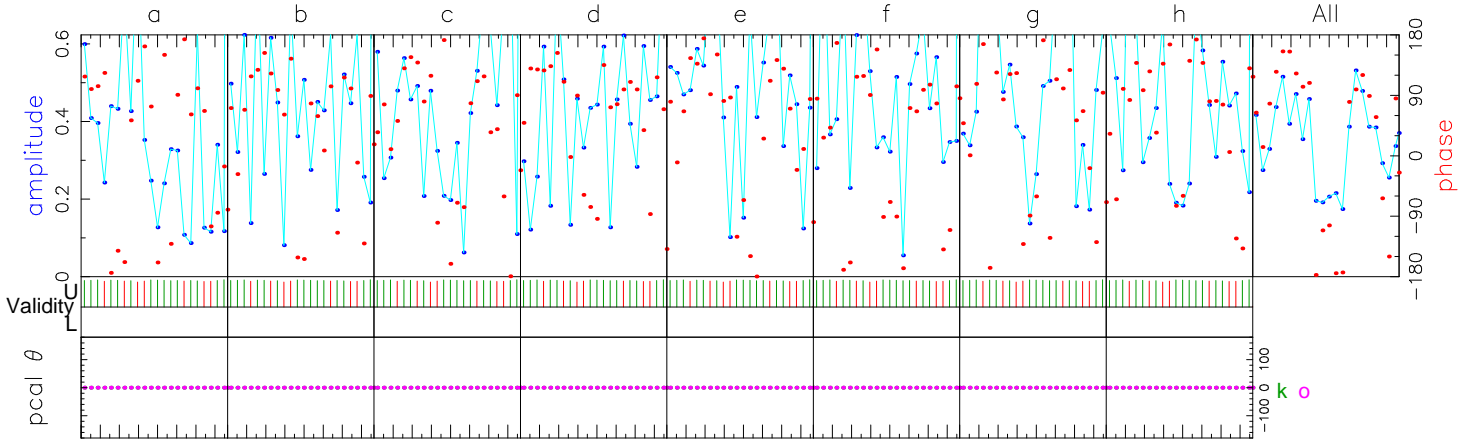


Fringe quality 9

SNR 11.7
Int time 421.493
Amp 0.208
Phase 113.5
PFD 8.9e-23
Delays (us)
SBD -0.000453
MBD -0.000516
Fringe rate (Hz) 0.006988
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210813
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



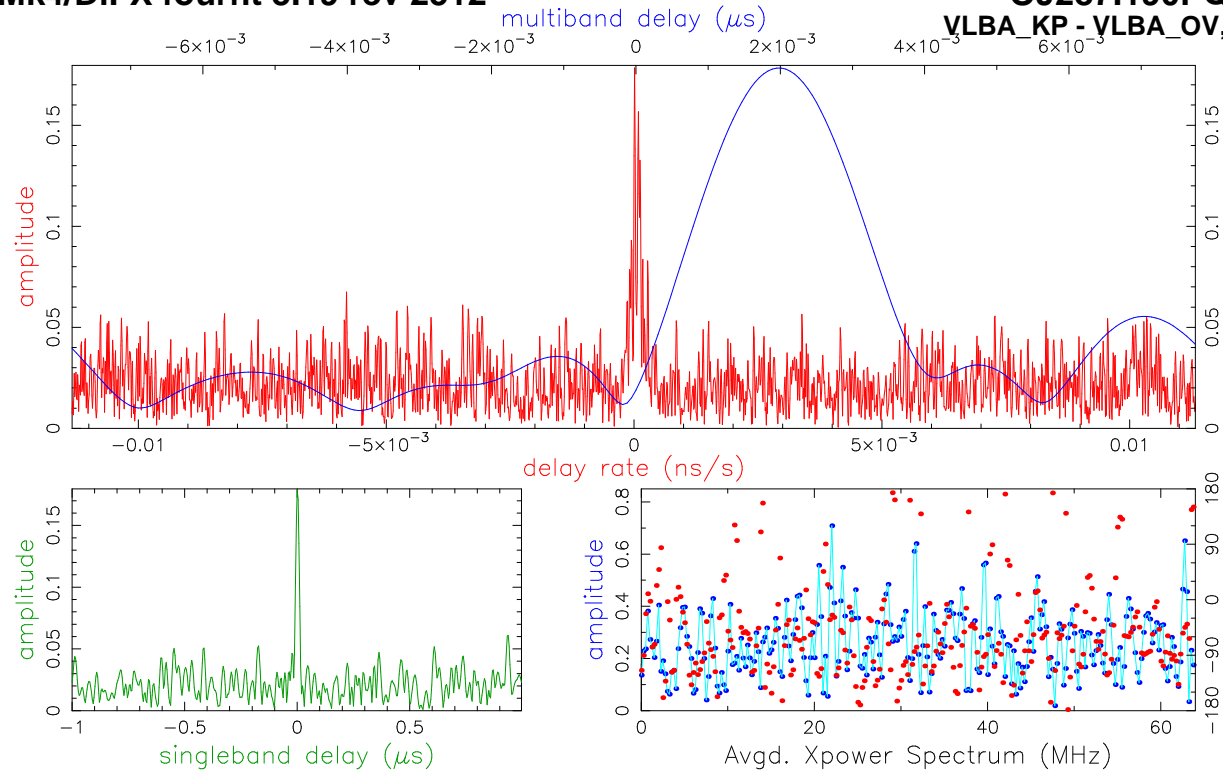
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)		1.55637601659E+03			1.55637653266E+03				-5.16064E-04	+/- 9.3E-05
Sband delay (usec)		1.55637607941E+03			-2.0439131E+01				-4.53250E-04	+/- 7.4E-04
Phase delay (usec)		1.55637653632E+03			-1.9560001E-07				3.66119E-06	+/- 3.2E-07
Delay rate (us/s)		3.43647103272E-02			3.43646292023E-02				8.11249E-08	+/- 1.2E-09
Total phase (deg)			301.8						113.5	+/- 9.8
			Apriori delay (usec)						Resid mbdelay (usec)	
			Apriori clock (usec)						Resid sbdelay (usec)	
			Apriori clockrate (us/s)						Resid phdelay (usec)	
			Apriori rate (us/s)						Resid rate (us/s)	
			Apriori accel (us/s/s)						Resid phase (deg)	
ph/seg (deg)	RMS 73.5	Theor. 23.5	Amplitude Search (2048X32)	0.208 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	85.5	41.1	Interp.	0.000					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	14.6	13.9	Inc. seg. avg.	0.322					Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	16.7	24.2	Inc. frq. avg.	0.207					Sample rate(MISamp/s): 128	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

k: az 81.4 el 25.5 pa -63.4 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) -227.294 -952.639 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/ko..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/ko.W.132.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, ko
VLBA_KP - VLBA_OV, fgroup W, pol RL

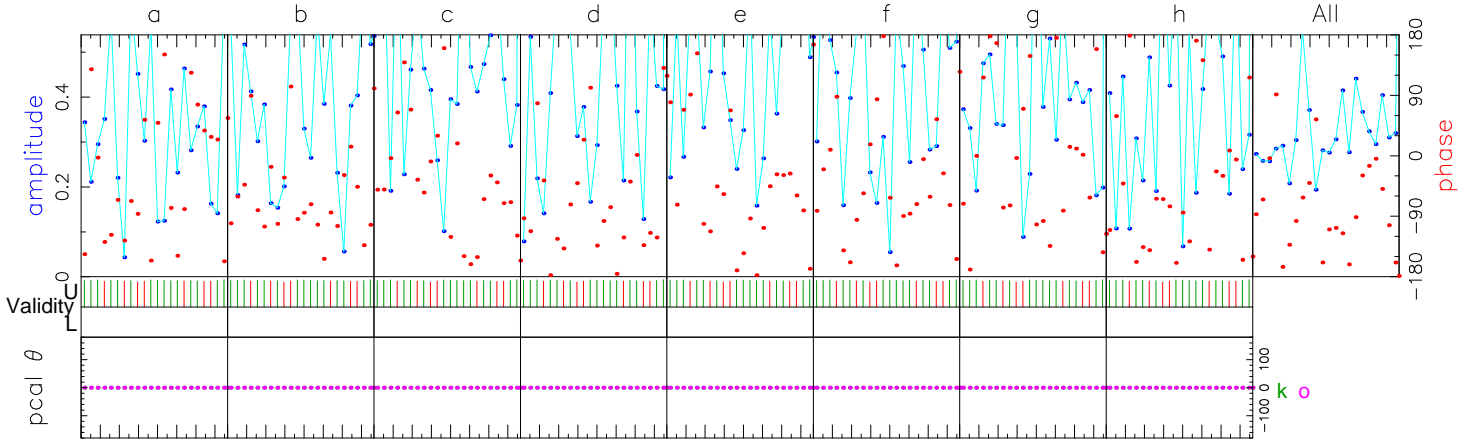


Fringe quality 9

SNR 10.1
Int time 421.496
Amp 0.180
Phase -83.9
PFD 2.8e-15
Delays (us)
SBD 0.001080
MBD 0.001995
Fringe rate (Hz) 0.000531
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build 2020:202:070201
2020:202:210817
2020:014:135814
RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

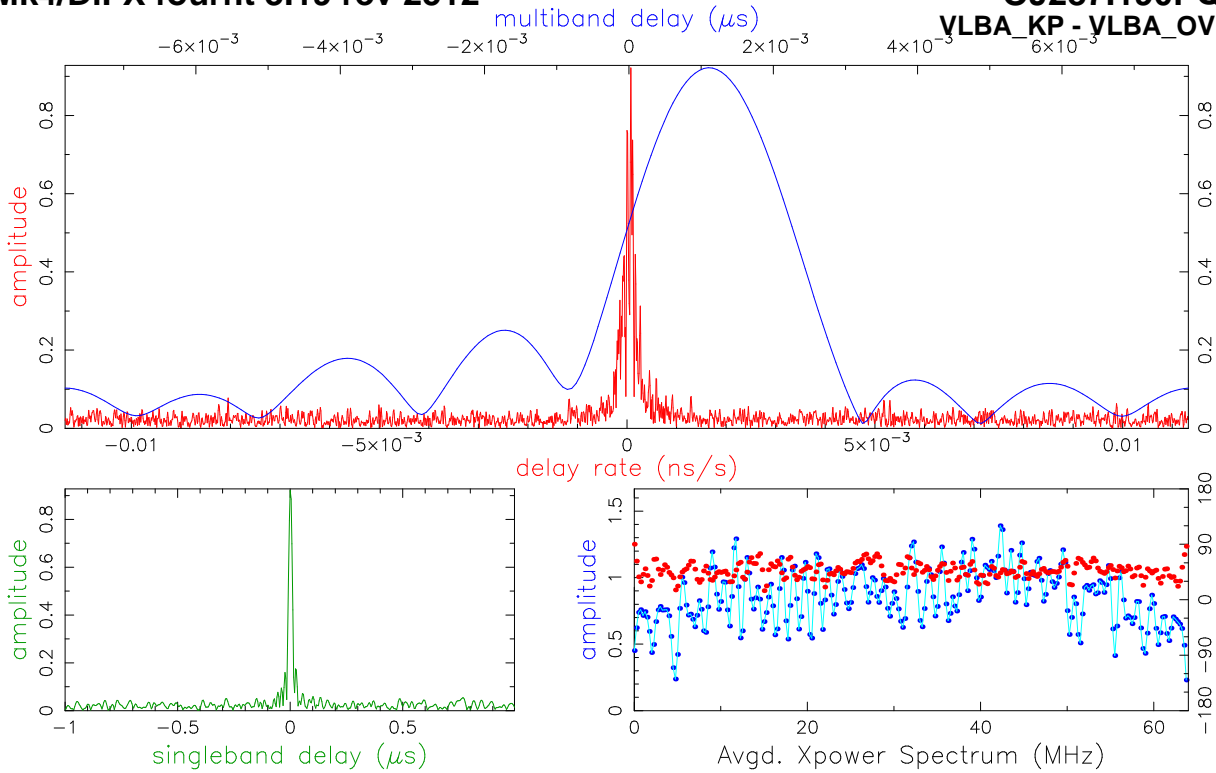


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-109.0	-88.2	-56.8	-99.9	-71.3	-65.0	-93.2	-101.4	Phase	-83.9
	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Ampl.	0.2
	4.0	256.7	257.4	257.8	257.3	256.9	395.1	257.3	Sbd box	257.3
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
k	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.55637852803E+03		Apriori delay (usec)		1.55637653266E+03		Resid mbdelay (usec)		1.99537E-03	+/- 1.1E-04
Sband delay (usec)	1.55637761316E+03		Apriori clock (usec)		-2.0439131E+01		Resid sbdelay (usec)		1.08050E-03	+/- 8.5E-04
Phase delay (usec)	1.55637652995E+03		Apriori clockrate (us/s)		-1.9560001E-07		Resid phdelay (usec)		-2.70584E-06	+/- 3.7E-07
Delay rate (us/s)	3.43646353647E-02		Apriori rate (us/s)		3.43646292023E-02		Resid rate (us/s)		6.16233E-09	+/- 1.4E-09
Total phase (deg)	104.4		Apriori accel (us/s/s)		-1.13085100078E-05		Resid phase (deg)		-83.9	+/- 11.4

ph/seg (deg) 68.4 27.2 Search (2048X32) 0.169 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 89.7 47.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 20.6 16.1 Inc. seg. avg. 0.287 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 21.8 28.0 Inc. frq. avg. 0.180 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 k: az 81.4 el 25.5 pa -63.4 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) -227.294 -952.639 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/ko..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/ko.W.146.190PQ9

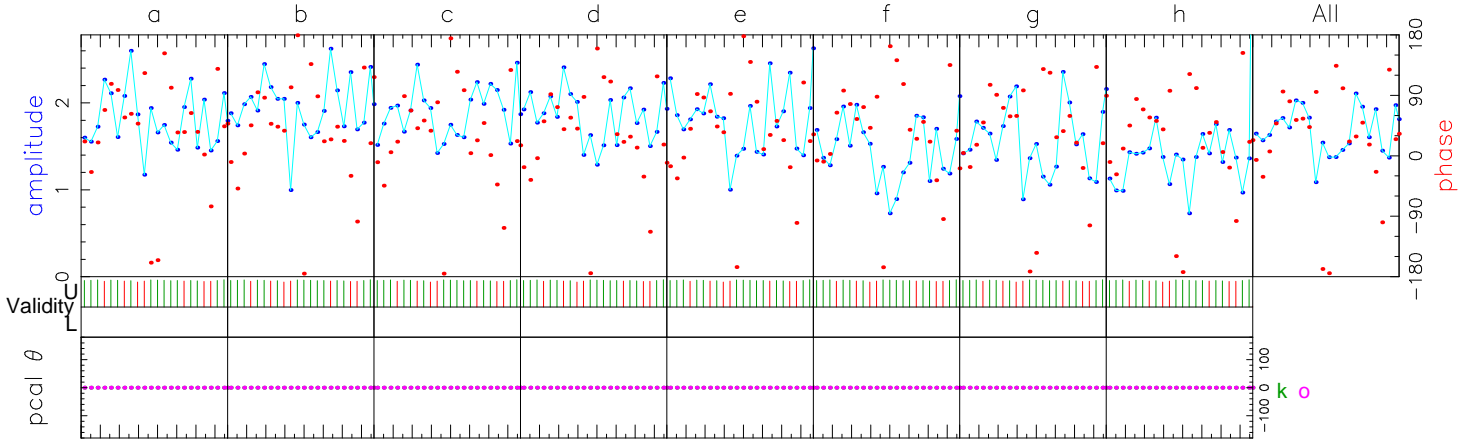
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, ko
VLBA_KP - VLBA_OV, fgroup W, pol LL



Fringe quality 5
SNR 52.1
Int time 421.496
Amp 0.928
Phase 47.0
PFD 0.0e+00
Delays (us)
SBD 0.001088
MBD 0.001138
Fringe rate (Hz) 0.006956
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210805
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



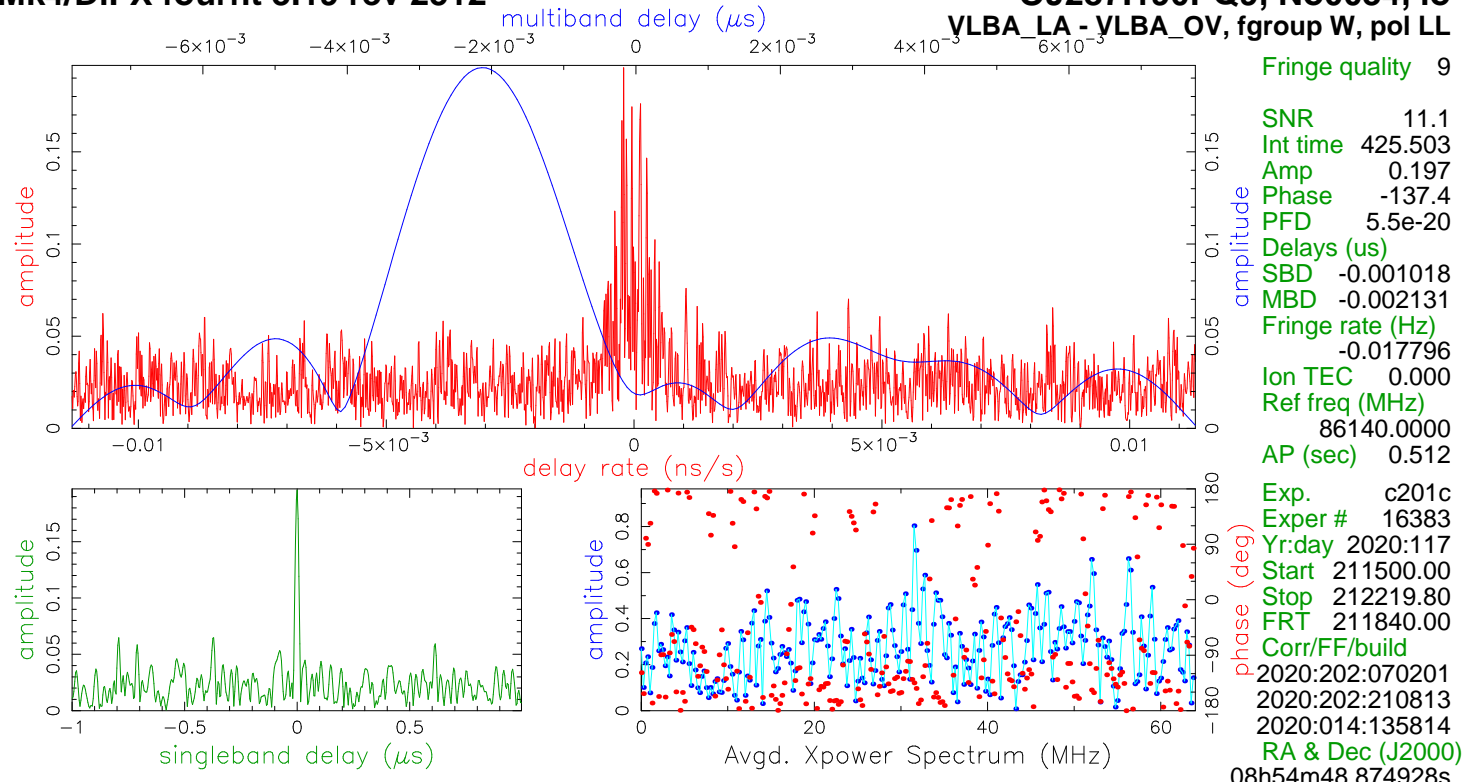
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
k	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
k	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.55637767062E+03	Apriori delay (usec)	1.55637653266E+03	Resid mbdelay (usec)	1.13797E-03	+/-	2.1E-05
Sband delay (usec)	1.55637762066E+03	Apriori clock (usec)	-2.0439131E+01	Resid sbdelay (usec)	1.08800E-03	+/-	1.7E-04
Phase delay (usec)	1.55637653417E+03	Apriori clockrate (us/s)	-1.9560001E-07	Resid phdelay (usec)	1.51432E-06	+/-	7.1E-08
Delay rate (us/s)	3.43647099588E-02	Apriori rate (us/s)	3.43646292023E-02	Resid rate (us/s)	8.07564E-08	+/-	2.8E-10
Total phase (deg)	235.2	Apriori accel (us/s/s)	-1.13085100078E-05	Resid phase (deg)	47.0	+/-	2.2

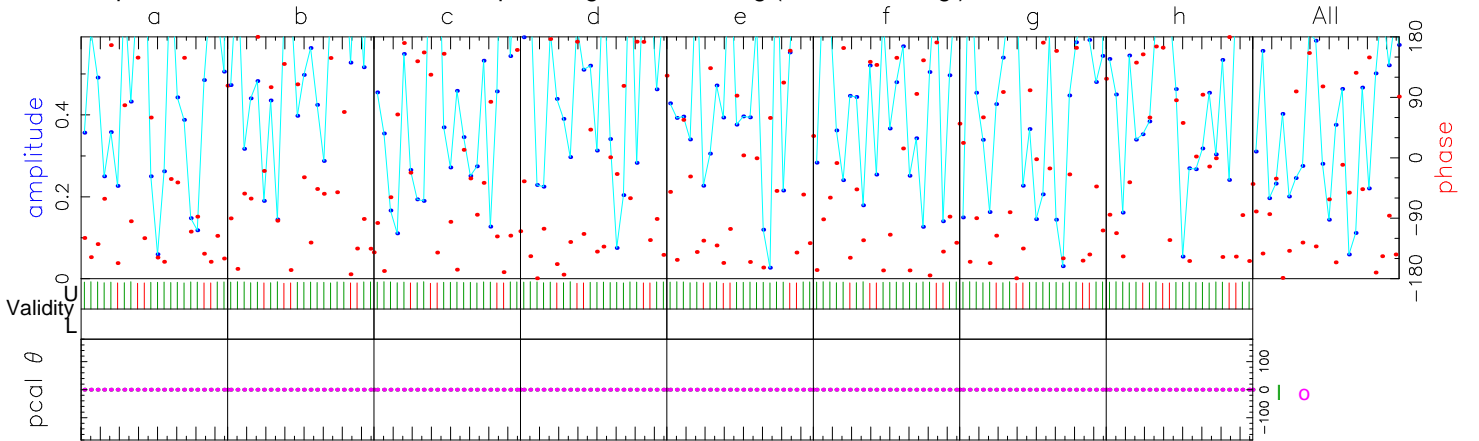
ph/seg (deg)	68.4	RMS	5.3	Theor.	0.928 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	85.0	Search (2048X32)	0.892	Amplitude	0.928 +/- 0.018	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	8.9	Interp.	0.000	Search (2048X32)	0.892	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	11.6	Inc. seg. avg.	1.666	Inc. seg. avg.	1.666	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	0.929	Inc. frq. avg.	0.929	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	

k: az 81.4 el 25.5 pa -63.4 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) -227.294 -952.639 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/ko..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/ko.W.96.190PQ9

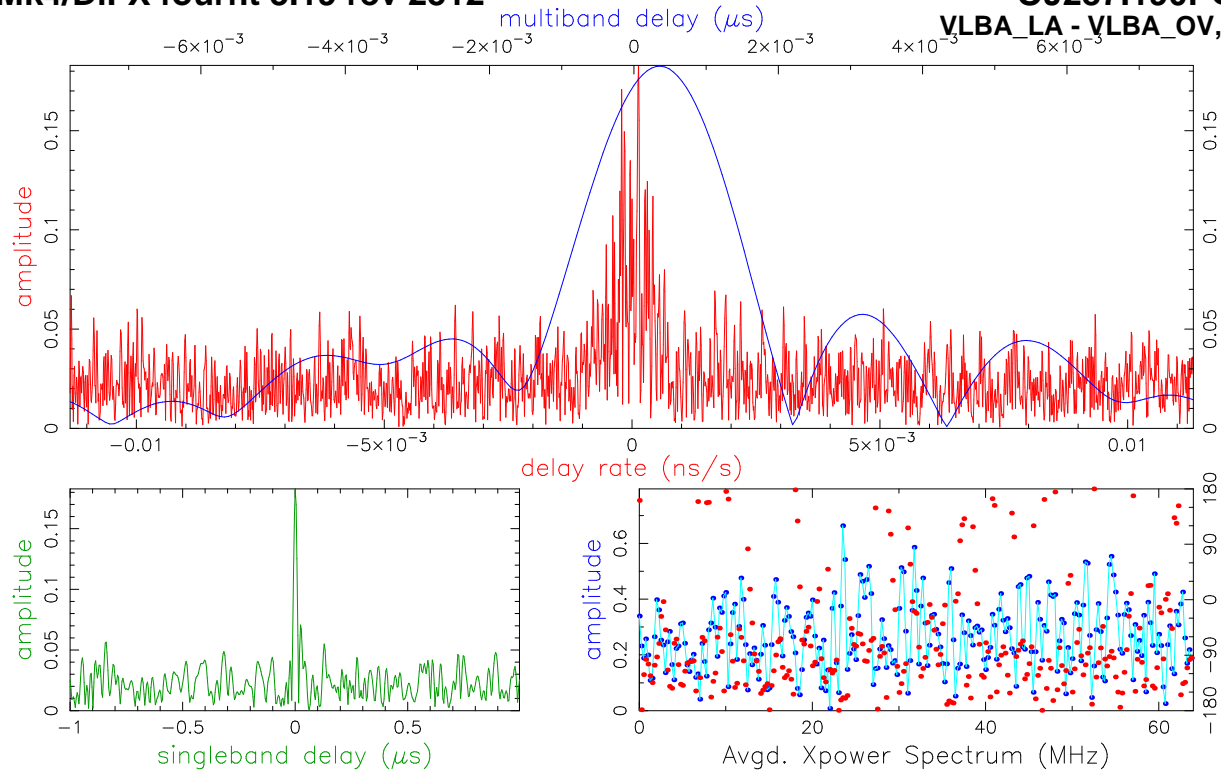


Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-135.8	-133.1	-157.1	-136.8	-111.4	-144.1	-134.3	-143.8	Phase	-137.4
	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	Ampl.	0.2
	255.7	257.3	256.2	256.9	257.1	256.4	386.3	257.2	Sbd box	256.7
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.11855325743E+03		Apriori delay (usec)		3.1185538846E+03		Resid mbdelay (usec)		-2.13104E-03	+/- 9.8E-05
Sband delay (usec)	3.11855436996E+03		Apriori clock (usec)		-2.3812021E+01		Resid sbdelay (usec)		-1.01850E-03	+/- 7.8E-04
Phase delay (usec)	3.1185538403E+03		Apriori clockrate (us/s)		-3.5200000E-07		Resid phdelay (usec)		-4.42957E-06	+/- 3.3E-07
Delay rate (us/s)	-5.81864545608E-02		Apriori rate (us/s)		-5.81862479674E-02		Resid rate (us/s)		-2.06593E-07	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.74956971833E-05		Resid phase (deg)		-137.4	+/- 10.3

RMS Theor. Amplitude 0.197 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 70.3 24.7 Search (2048X32) 0.182 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 125.3 43.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 14.0 14.6 Inc. seg. avg. 0.335 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 18.2 25.5 Inc. frq. avg. 0.194 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 l: az 86.1 el 30.3 pa -59.6 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 325.857 -672.486 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/lo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/lo.W.131.190PQ9

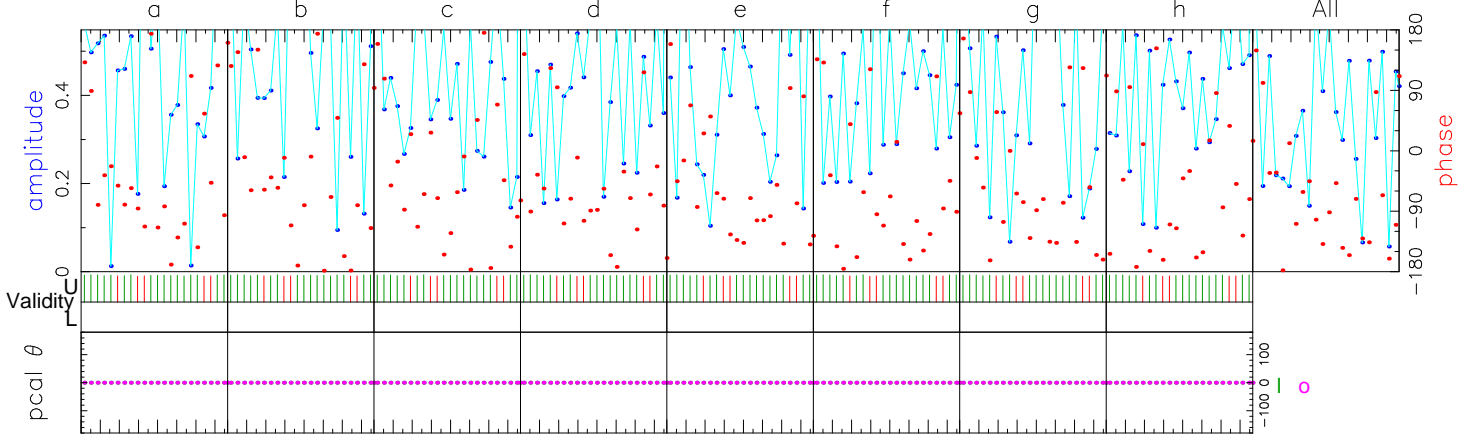


Fringe quality 9

SNR 10.3
Int time 425.500
Amp 0.183
Phase -104.5
PFD 2.6e-16
Delays (us)
SBD 0.000601
MBD 0.000376
Fringe rate (Hz) 0.011452
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

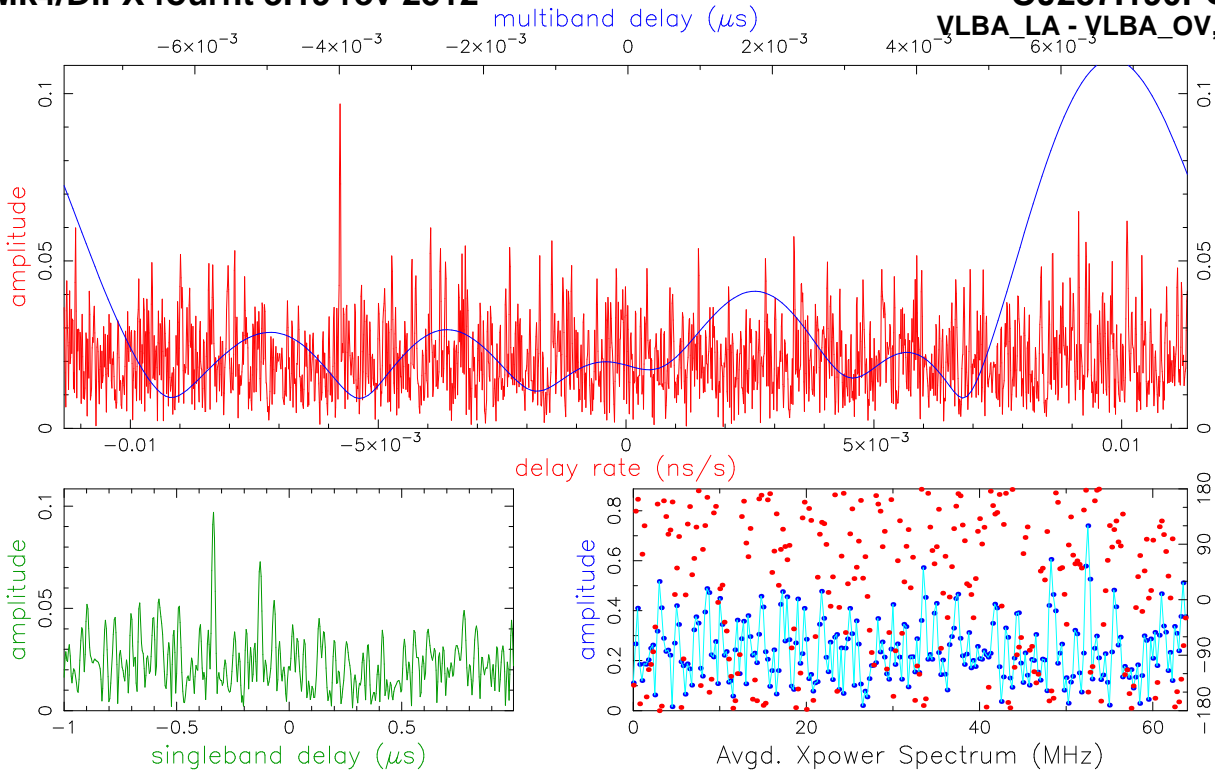
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build 2020:202:070201
2020:202:210817
2020:014:135814
RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



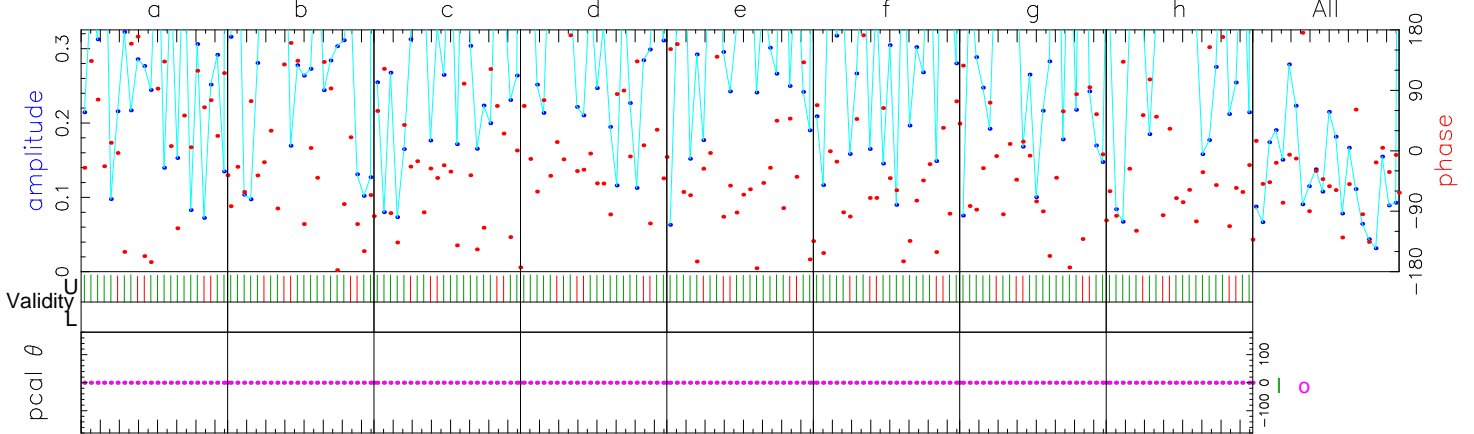
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-109.1	-103.5	-103.1	-89.2	-96.2	-119.4	-114.4	-97.1	Phase	-104.5
	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	Ampl.	0.2
	256.3	257.0	173.8	42.2	257.7	257.8	257.6	257.8	Sbd box	257.2
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.11855576488E+03		Apriori delay (usec)		3.11855538846E+03		Resid mbdelay (usec)		3.76413E-04	+/- 1.1E-04
Sband delay (usec)	3.11855598946E+03		Apriori clock (usec)		-2.3812021E+01		Resid sbdelay (usec)		6.01000E-04	+/- 8.4E-04
Phase delay (usec)	3.11855538509E+03		Apriori clockrate (us/s)		-3.5200000E-07		Resid phdelay (usec)		-3.37132E-06	+/- 3.6E-07
Delay rate (us/s)	-5.81861150165E-02		Apriori rate (us/s)		-5.81862479674E-02		Resid rate (us/s)		1.32951E-07	+/- 1.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.74956971833E-05		Resid phase (deg)		-104.5	+/- 11.1

ph/seg (deg) 72.0 26.6 Search (2048X32) 0.179 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 126.0 46.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 10.8 15.7 Inc. seg. avg. 0.312 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 20.6 27.4 Inc. frq. avg. 0.178 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 l: az 86.1 el 30.3 pa -59.6 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 325.857 -672.486 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/lo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/lo.W.150.190PQ9

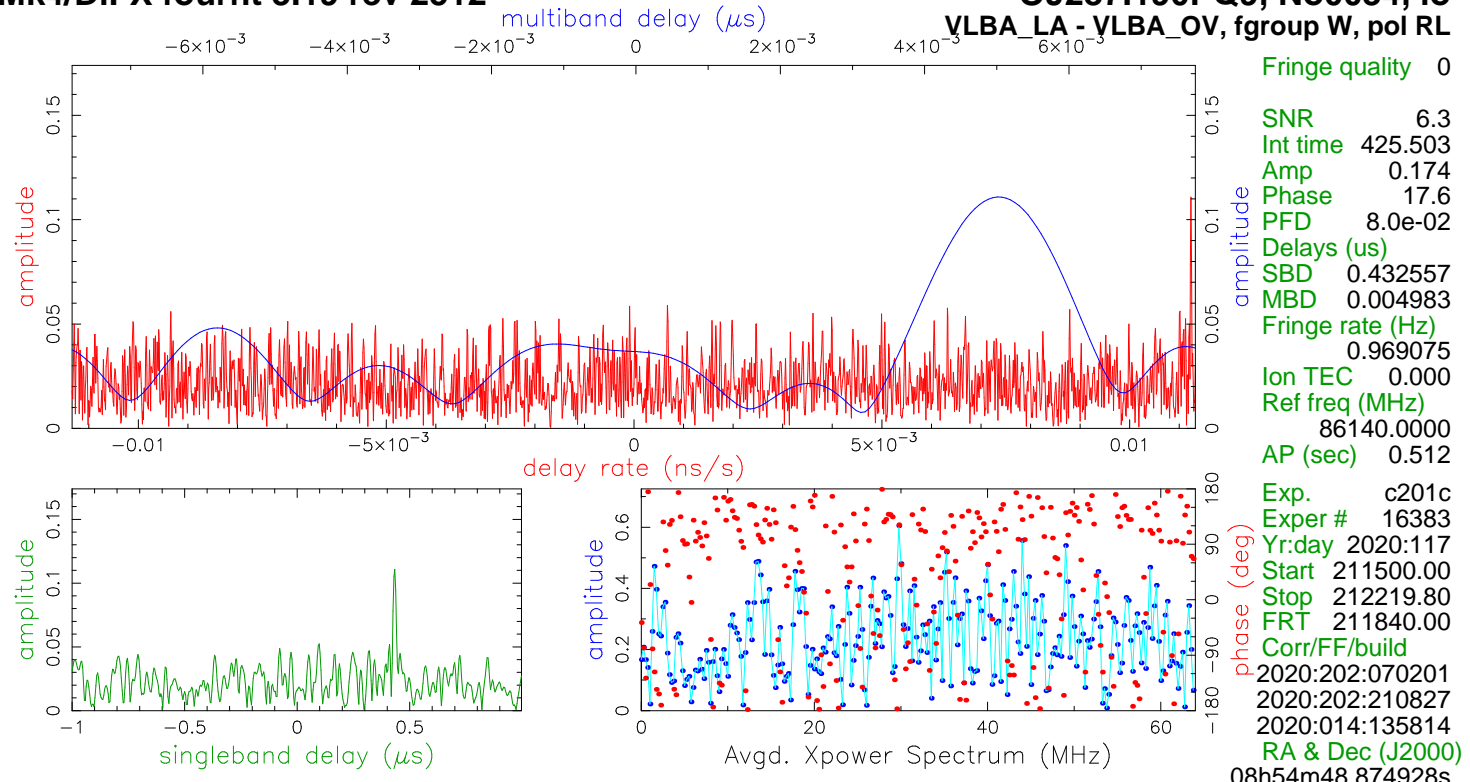


Fringe quality 0
SNR 5.5
Int time 425.500
Amp 0.108
Phase -36.4
PFD 1.0e+00
Delays (us)
SBD -0.336652
MBD -0.008301
Fringe rate (Hz)
-0.497258
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210822
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

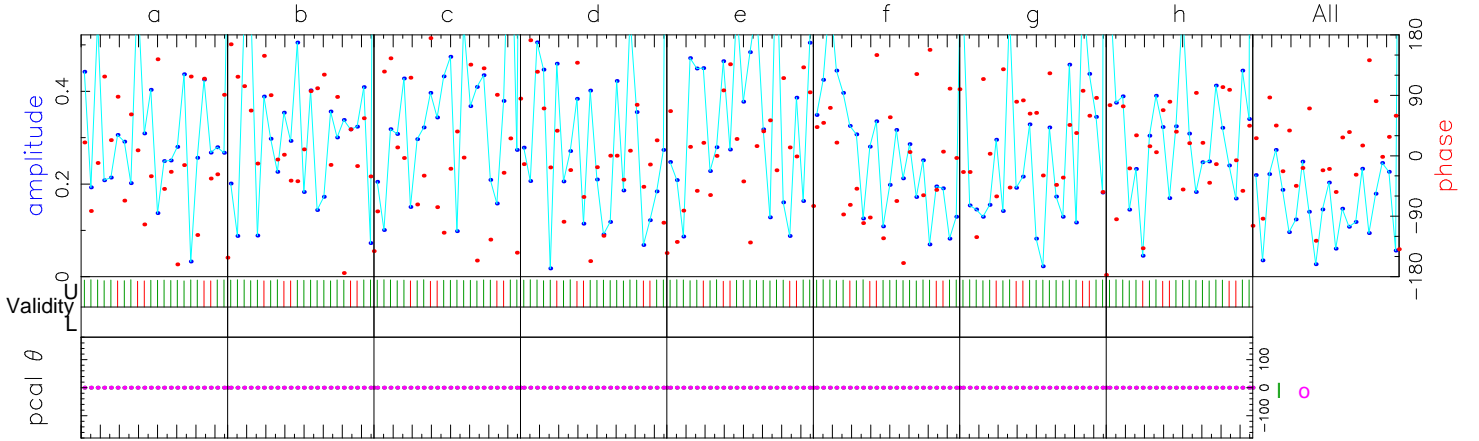
Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
l	1000	1000	1000	1000	1000	1000	1000	1000	APs used	1000
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	1000
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	0:0
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	0:0
l	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	1000
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.11821896268E+03				3.1185538846E+03				Resid mbdelay (usec)	-8.30078E-03 +/- 2.0E-04
Sband delay (usec)	3.11821873646E+03				-2.3812021E+01				Resid sbdelay (usec)	-3.36652E-01 +/- 1.6E-03
Phase delay (usec)	3.1185538729E+03				-3.5200000E-07				Resid phdelay (usec)	-1.17292E-06 +/- 6.7E-07
Delay rate (us/s)	-5.81920206395E-02				-5.81862479674E-02				Resid rate (us/s)	-5.77267E-06 +/- 2.7E-09
Total phase (deg)		22.1			-1.74956971833E-05				Resid phase (deg)	-36.4 +/- 20.9
	RMS	Theor.	Amplitude	0.108 +/- 0.020					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	55.1	50.1	Search (2048X32)	0.105					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	75.2	87.4	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	52.5	29.5	Inc. seg. avg.	0.105					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	39.7	51.6	Inc. frq. avg.	0.119					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00



Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
l	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
l	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	3.11898224628E+03	Apriori delay (usec)	3.11855538846E+03	Resid mbdelay (usec)	4.98282E-03	+/-	1.7E-04
Sband delay (usec)	3.11898794546E+03	Apriori clock (usec)	-2.3812021E+01	Resid sbdelay (usec)	4.32557E-01	+/-	1.4E-03
Phase delay (usec)	3.11855538903E+03	Apriori clockrate (us/s)	-3.5200000E-07	Resid phdelay (usec)	5.66010E-07	+/-	5.9E-07
Delay rate (us/s)	-5.81749979657E-02	Apriori rate (us/s)	-5.81862479674E-02	Resid rate (us/s)	1.12500E-05	+/-	2.3E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.74956971833E-05	Resid phase (deg)	17.6	+/-	18.2

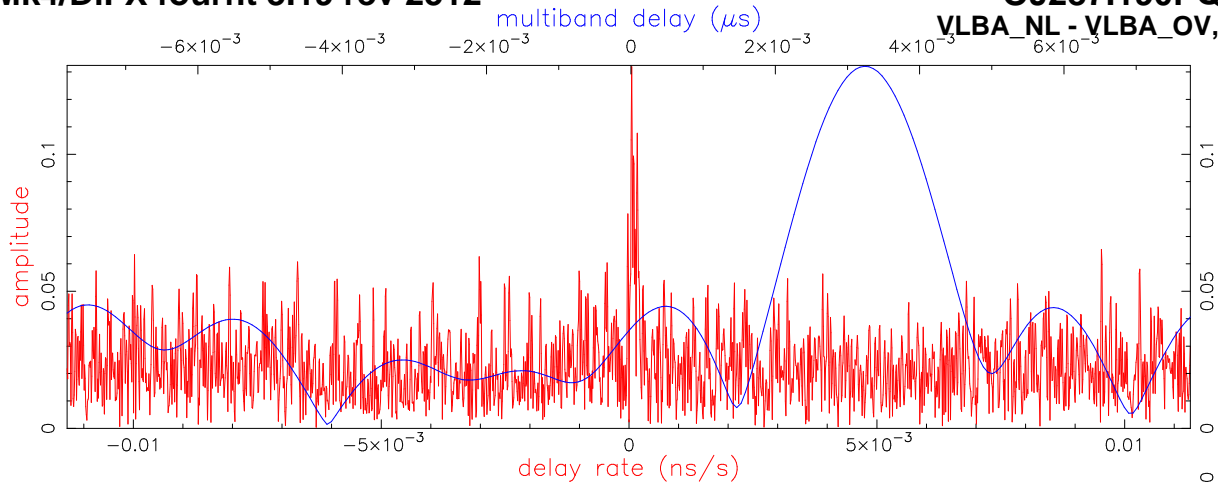
ph/seg (deg)	60.8	Theor.	43.7	Amplitude	0.174 +/- 0.028	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	80.8		76.2	Search (2048X32)	0.109	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	28.2		25.7	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	36.7		44.9	Inc. seg. avg.	0.187	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.169	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

l: az 86.1 el 30.3 pa -59.6 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 325.857 -672.486 simultaneous interpolator

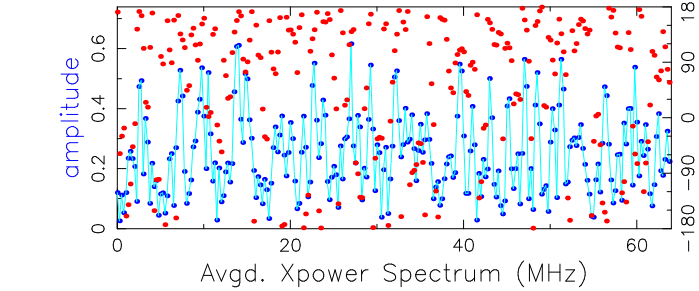
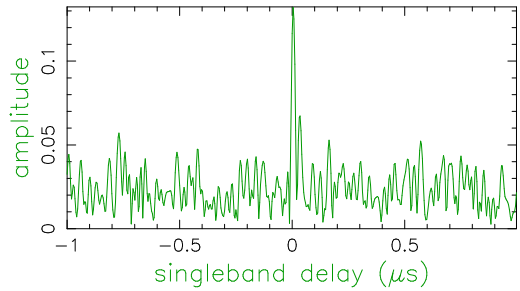
Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/lo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/lo.W.185.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, no VLBA_NL - VLBA_OV, fgroup W, pol RR

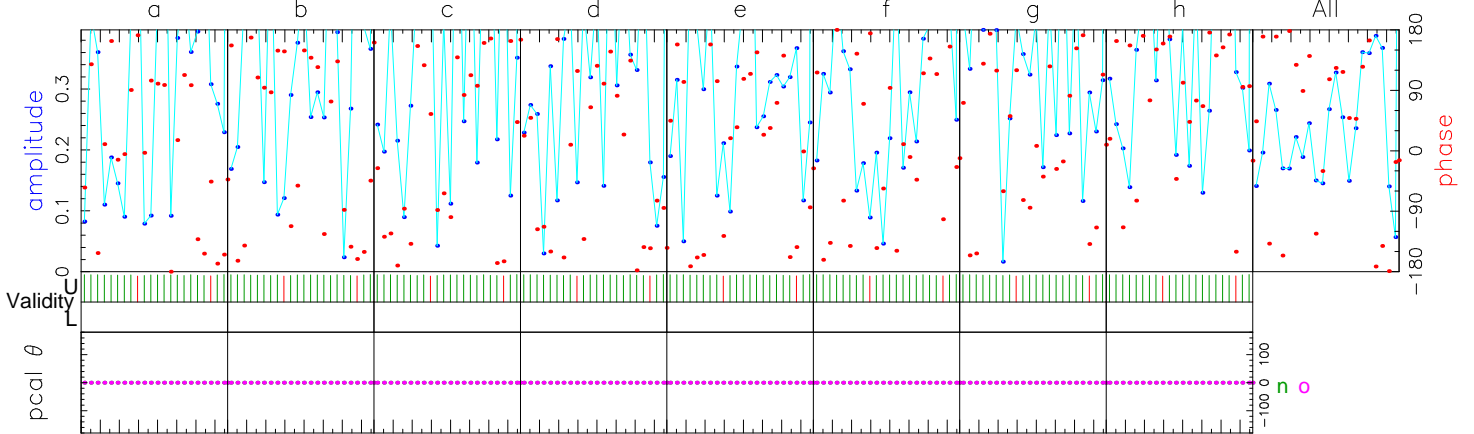


Fringe quality 9
 SNR 7.5
 Int time 429.327
 Amp 0.132
 Phase 152.1
 PFD 2.0e-05
 Delays (us)
 SBD 0.004668
 MBD 0.003278
 Fringe rate (Hz) 0.005011
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build 2020:202:070201
 2020:202:210820
 2020:014:135814
 RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

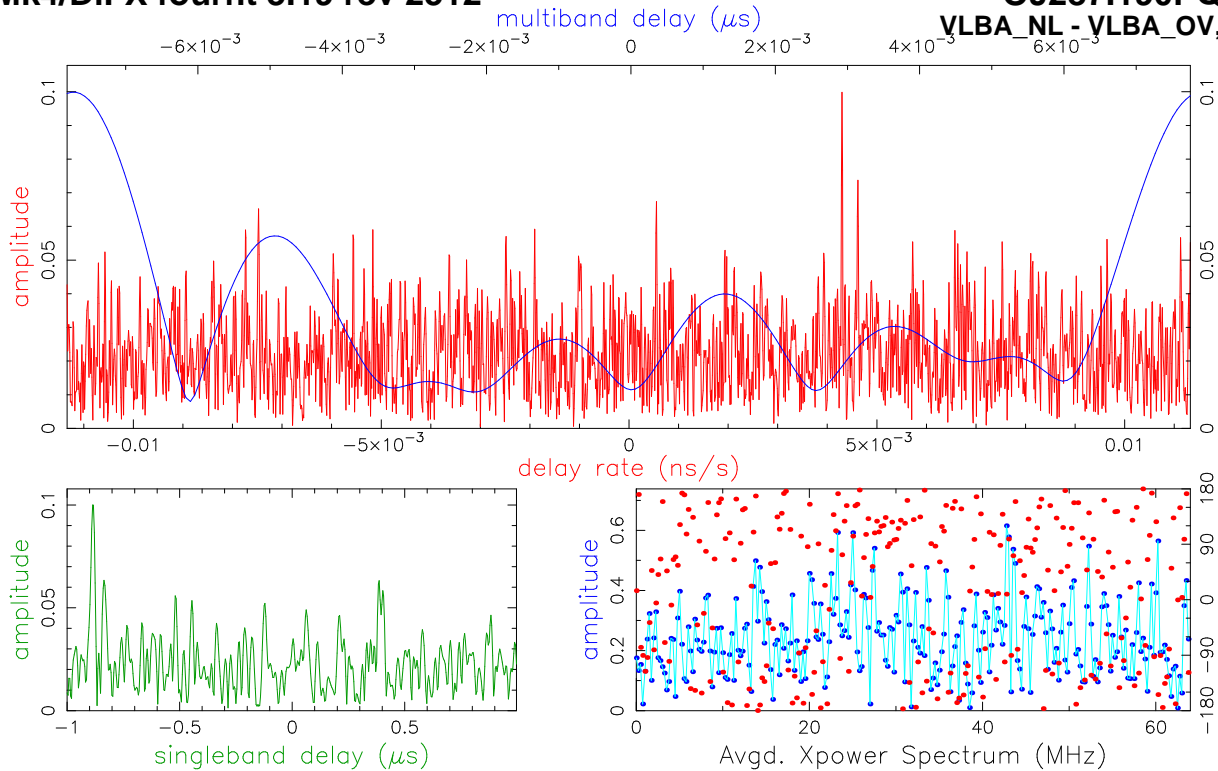


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	139.2	163.6	156.7	153.0	140.4	-176.3	141.8	143.2	Phase	152.1
	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	Ampl.	0.1
	159.1	259.8	258.0	133.8	418.7	171.5	405.2	257.4	Sbd box	258.2
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.42734956498E+03		Apriori delay (usec)		6.42734628741E+03		Resid mbdelay (usec)		3.27757E-03	+/- 1.4E-04
Sband delay (usec)	6.42735095591E+03		Apriori clock (usec)		1.2204569E+01		Resid sbdelay (usec)		4.66850E-03	+/- 1.1E-03
Phase delay (usec)	6.42734629231E+03		Apriori clockrate (us/s)		1.3299997E-07		Resid phdelay (usec)		4.90422E-06	+/- 4.9E-07
Delay rate (us/s)	-2.92665217082E-01		Apriori rate (us/s)		-2.92665275253E-01		Resid rate (us/s)		5.81712E-08	+/- 1.9E-09
Total phase (deg)	223.1		Apriori accel (us/s/s)		-3.17529461008E-05		Resid phase (deg)		152.1	+/- 15.3

ph/seg (deg) 76.0 36.6 Search (2048X32) 0.128 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 103.4 63.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.5 21.6 Inc. seg. avg. 0.193 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.7 37.7 Inc. frq. avg. 0.127 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 100.2 el 41.5 pa -51.4 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 1730.368 -411.019 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/no..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/no.W.159.190PQ9

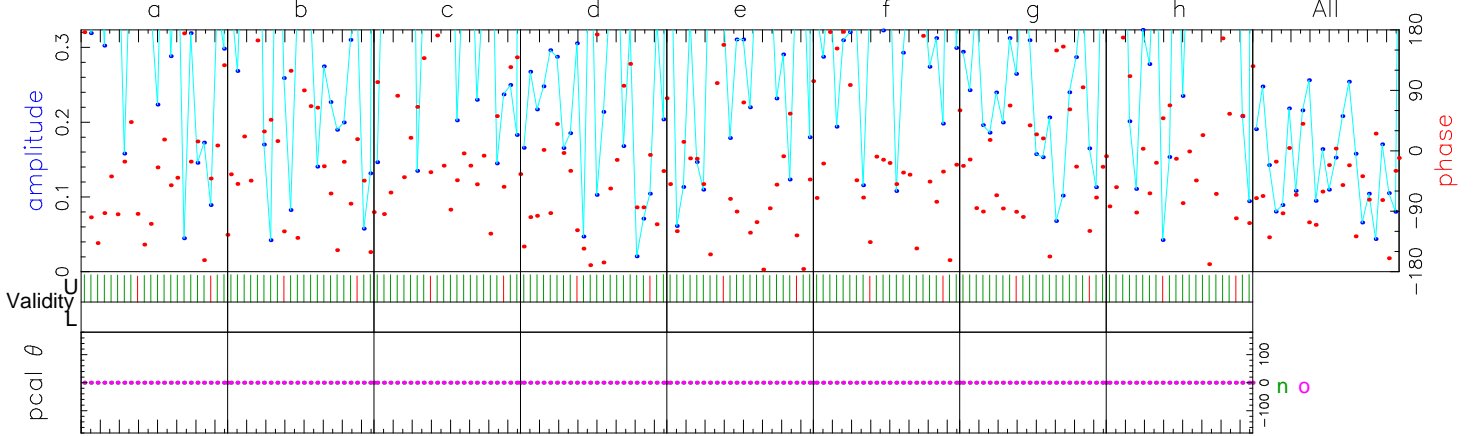
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, no VLBA_NL - VLBA_OV, fgroup W, pol RL



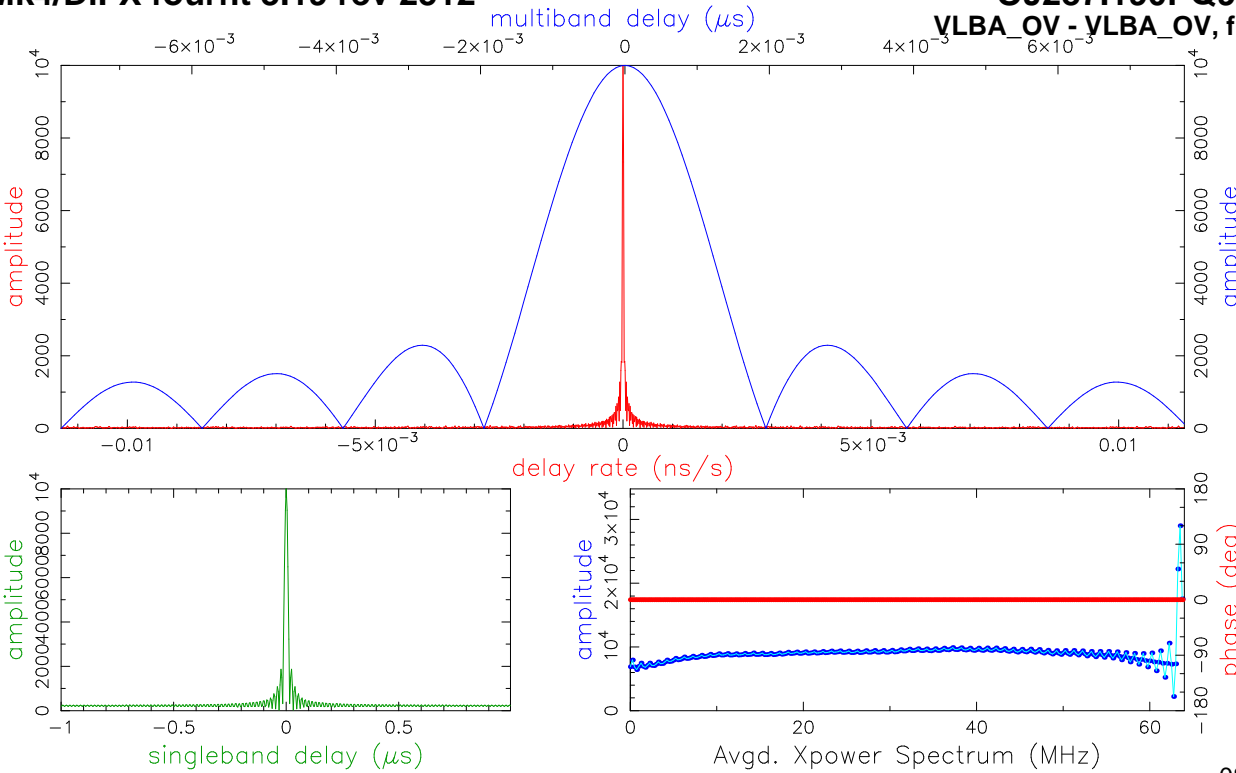
Fringe quality 0
 SNR 5.8
 Int time 429.329
 Amp 0.108
 Phase -55.8
 PFD 8.8e-01
 Delays (us)
 SBD -0.884782
 MBD 0.007879
 Fringe rate (Hz) 0.370863
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build 2020:202:070201
 2020:202:210824
 2020:014:135814
 RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
	-70.5	-13.0	-30.9	-83.2	-99.5	-77.0	-30.4	-43.3	Phase	-55.8
	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Ampl.	0.1
	323.6	406.4	225.3	360.8	123.0	500.8	391.1	272.9	Sbd box	30.5
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
n:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
n	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
n	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.42646354100E+03		Apriori delay (usec)		6.42734628741E+03		Resid mbdelay (usec)		7.87859E-03	+/- 1.9E-04
Sband delay (usec)	6.42646150566E+03		Apriori clock (usec)		1.2204569E+01		Resid sbdelay (usec)		-8.84782E-01	+/- 1.5E-03
Phase delay (usec)	6.42734628561E+03		Apriori clockrate (us/s)		1.3299997E-07		Resid phdelay (usec)		-1.79889E-06	+/- 6.4E-07
Delay rate (us/s)	-2.92660969905E-01		Apriori rate (us/s)		-2.92665275253E-01		Resid rate (us/s)		4.30535E-06	+/- 2.5E-09
Total phase (deg)	15.2		Apriori accel (us/s/s)		-3.17529461008E-05		Resid phase (deg)		-55.8	+/- 19.9

ph/seg (deg) 50.9 47.7 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 78.9 83.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 33.1 28.2 Inc. seg. avg. 0.117 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 29.2 49.1 Inc. frq. avg. 0.106 Sample rate(MSamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 n: az 100.2 el 41.5 pa -51.4 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 1730.368 -411.019 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/no..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/no.W.174.190PQ9

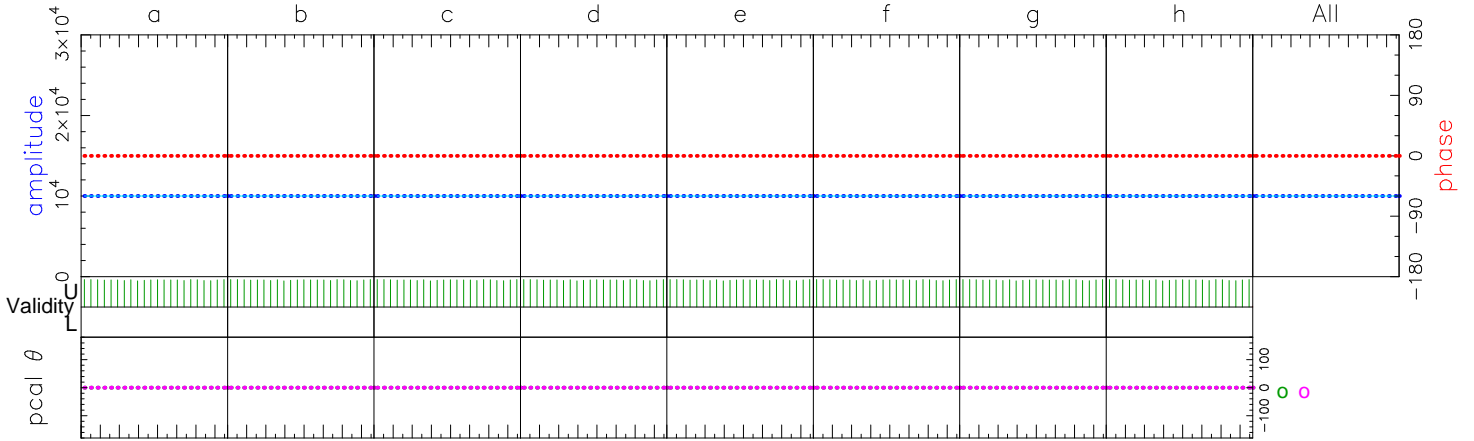


Fringe quality 9

SNR 568245.8
Int time 431.795
Amp 10000.000
Phase -0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build 2020:202:070201
2020:202:210822
2020:014:135814
RA & Dec (J2000) 08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



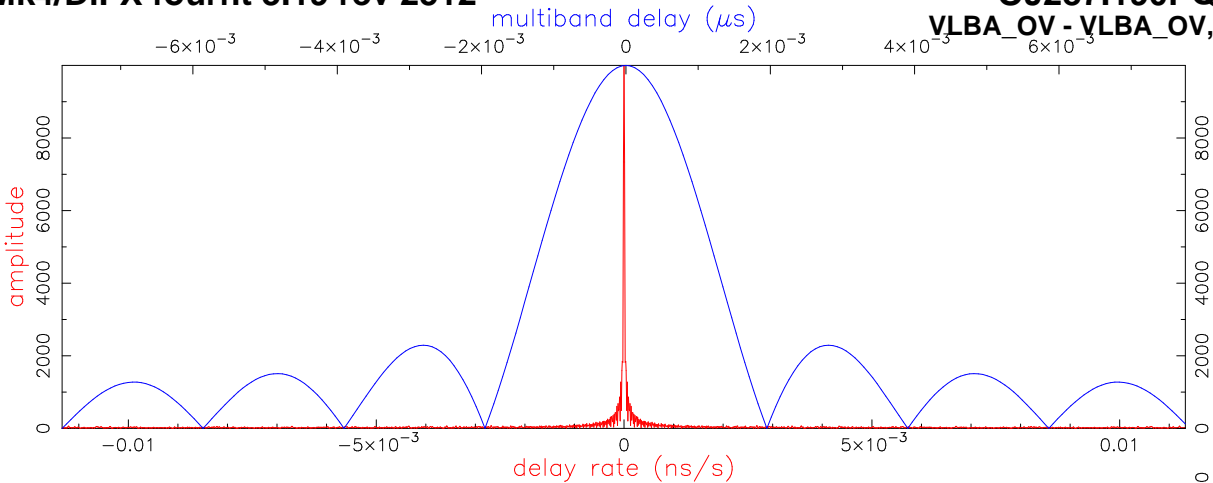
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.9E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08
 Phase delay (usec) -1.90934049505E-19 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -1.90934E-19 +/- 6.5E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.6E-14
 Total phase (deg) -0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) -0.0 +/- 0.0

RMS Theor. Amplitude 10000.000 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

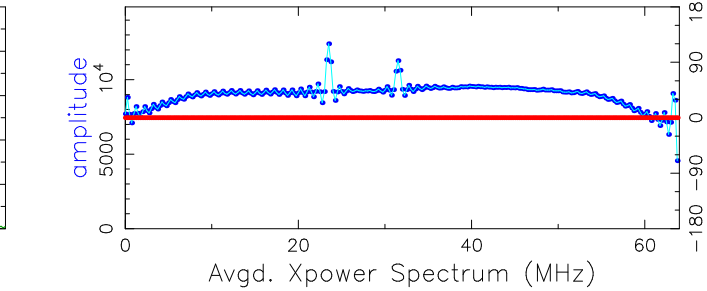
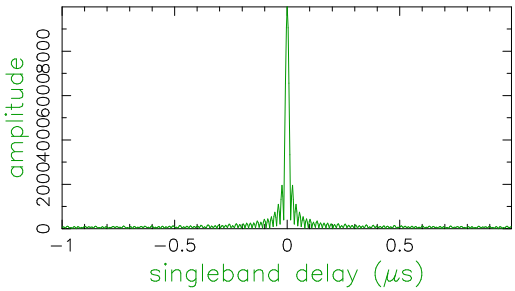
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, oo
VLBA_OV - VLBA_OV, fgroup W, pol RR



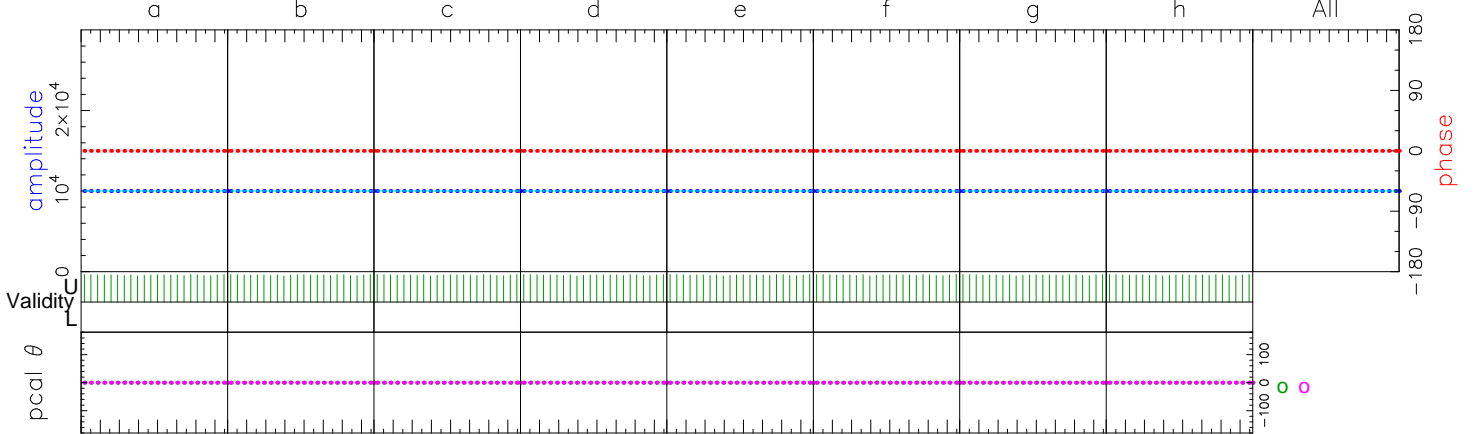
Fringe quality 9

SNR 568244.1
Int time 431.792
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c201c
Yr:day 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210825
2020:014:135814
RA & Dec (J2000)
08h54m48.8749285s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

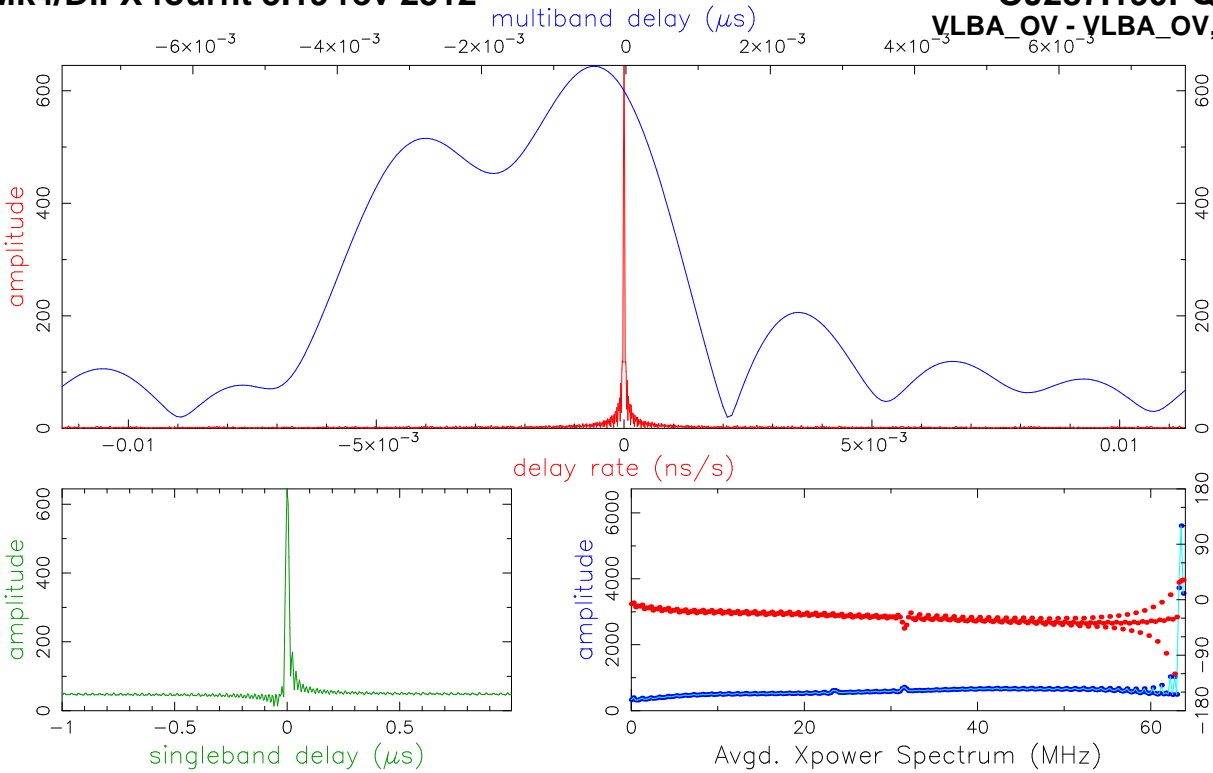


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.00000E+00	+/- 1.9E-09
Sband delay (usec)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.00000E+00	+/- 1.5E-08
Phase delay (usec)	1.07955242834E-20	1.07955242834E-20	1.07955242834E-20	1.07955242834E-20	1.07955242834E-20	1.07955242834E-20	1.07955242834E-20	1.07955242834E-20	1.07955E-20	+/- 6.5E-12
Delay rate (us/s)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.00000E+00	+/- 2.6E-14
Total phase (deg)			0.0						0.0	+/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/oo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/oo.W.178.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, oo
VLBA_OV - VLBA_OV, fgroup W, pol LR

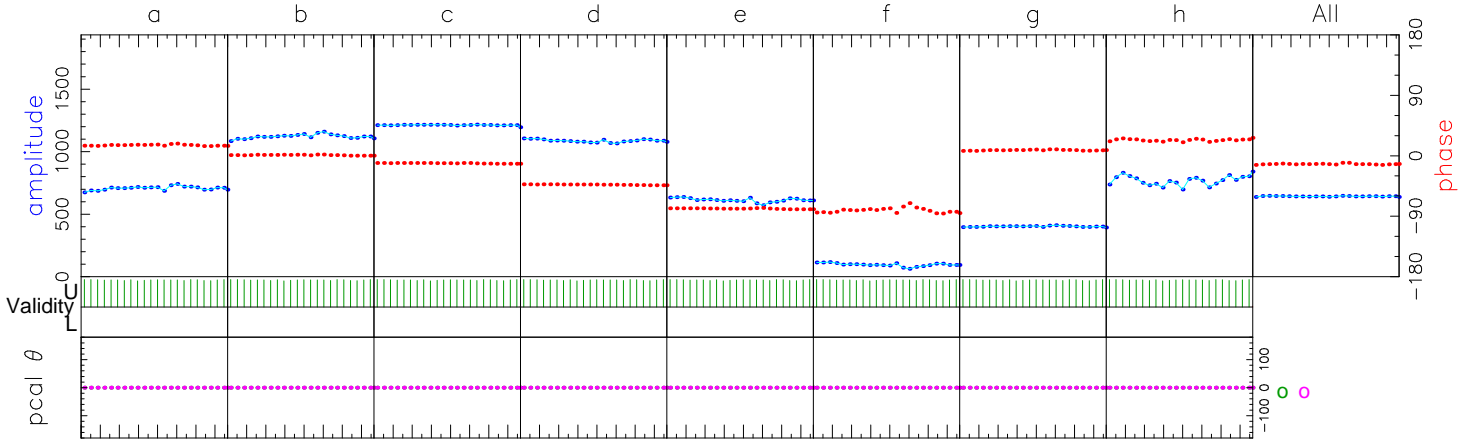


Fringe quality 5

SNR 36645.9
Int time 431.795
Amp 644.896
Phase -12.3
PFD 0.0e+00
Delays (us)
SBD 0.000609
MBD -0.000431
Fringe rate (Hz) 0.000009
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

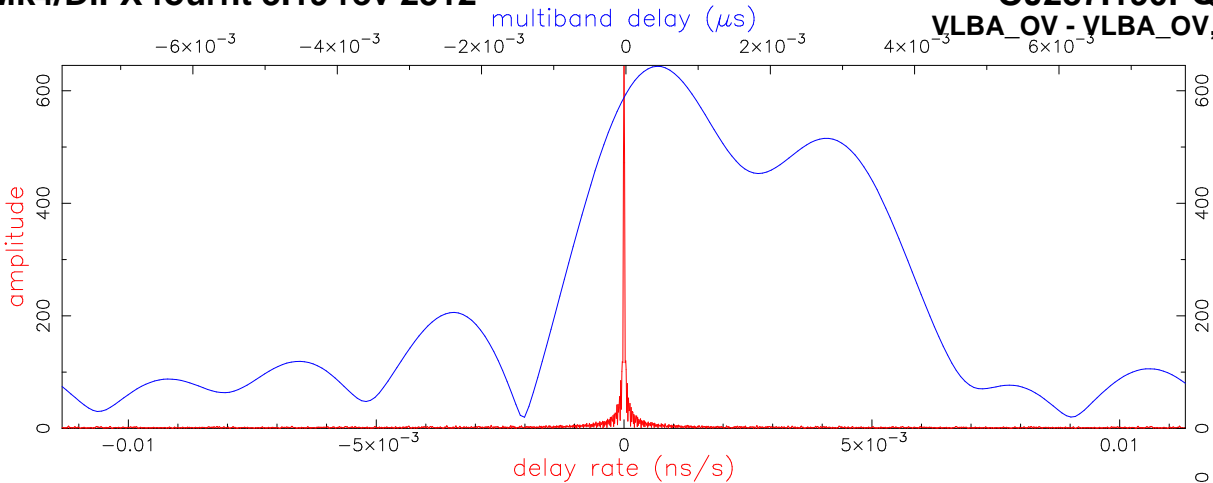
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210829
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



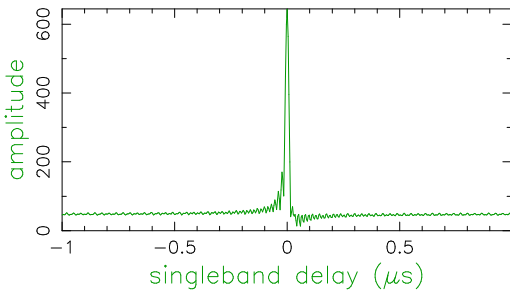
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
o									Tracks	
Group delay (usec)(sbd)		-4.31062500000E-04				0.00000000000E+00			Resid mbdelay (usec)	-4.31063E-04 +/- 3.0E-08
Sband delay (usec)		6.08750000000E-04				0.0000000E+00			Resid sbdelay (usec)	6.08750E-04 +/- 2.4E-07
Phase delay (usec)		-3.97086904276E-07				0.0000000E+00			Resid phdelay (usec)	-3.97087E-07 +/- 1.0E-10
Delay rate (us/s)		1.06992200557E-10				0.00000000000E+00			Resid rate (us/s)	1.06992E-10 +/- 4.0E-13
Total phase (deg)			-12.3			0.00000000000E+00			Resid phase (deg)	-12.3 +/- 0.0

ph/seg (deg) 0.8 0.0 Search (2048X32) 642.741 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 0.4 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 46.2 0.0 Inc. seg. avg. 643.411 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 58.2 0.0 Inc. frq. avg. 751.465 Data rate (Mbit/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 0.000 0.000 ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/oo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/oo.W.192.190PQ9 simultaneous interpolator

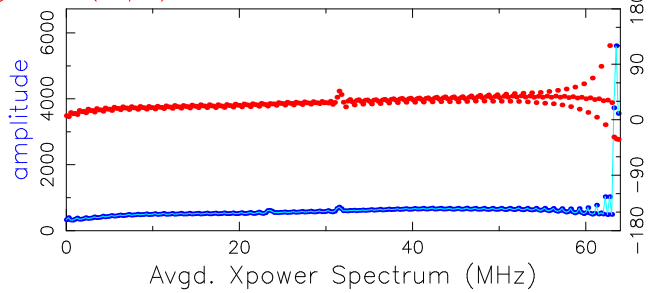


Fringe quality 5

SNR 36646.0
Int time 431.792
Amp 644.899
Phase 12.3
PFD 0.0e+00
Delays (us)
SBD -0.000609
MBD 0.000431
Fringe rate (Hz)
-0.000009
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

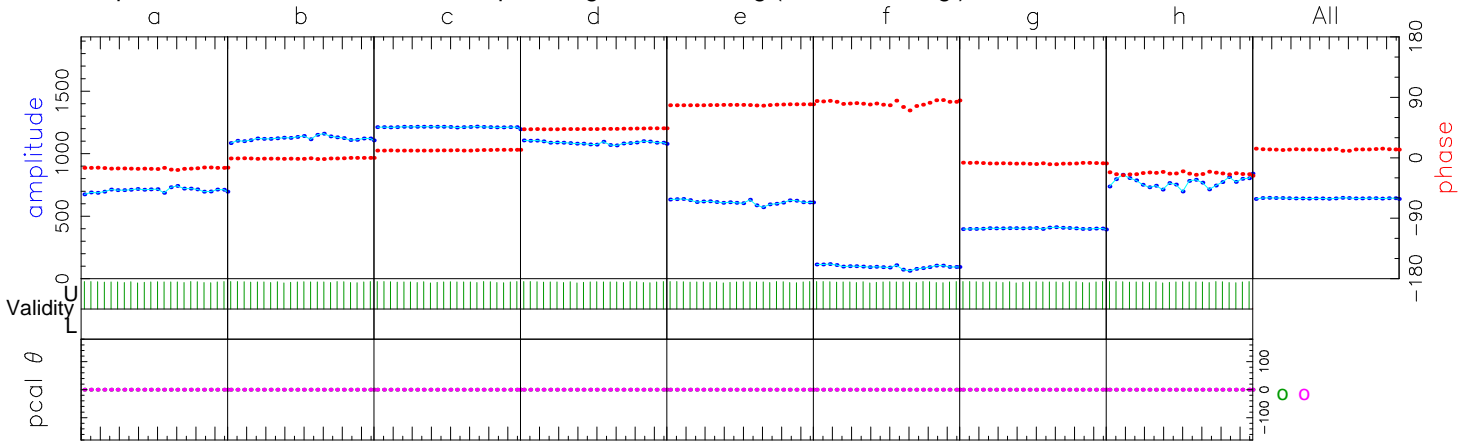


delay rate (ns/s)



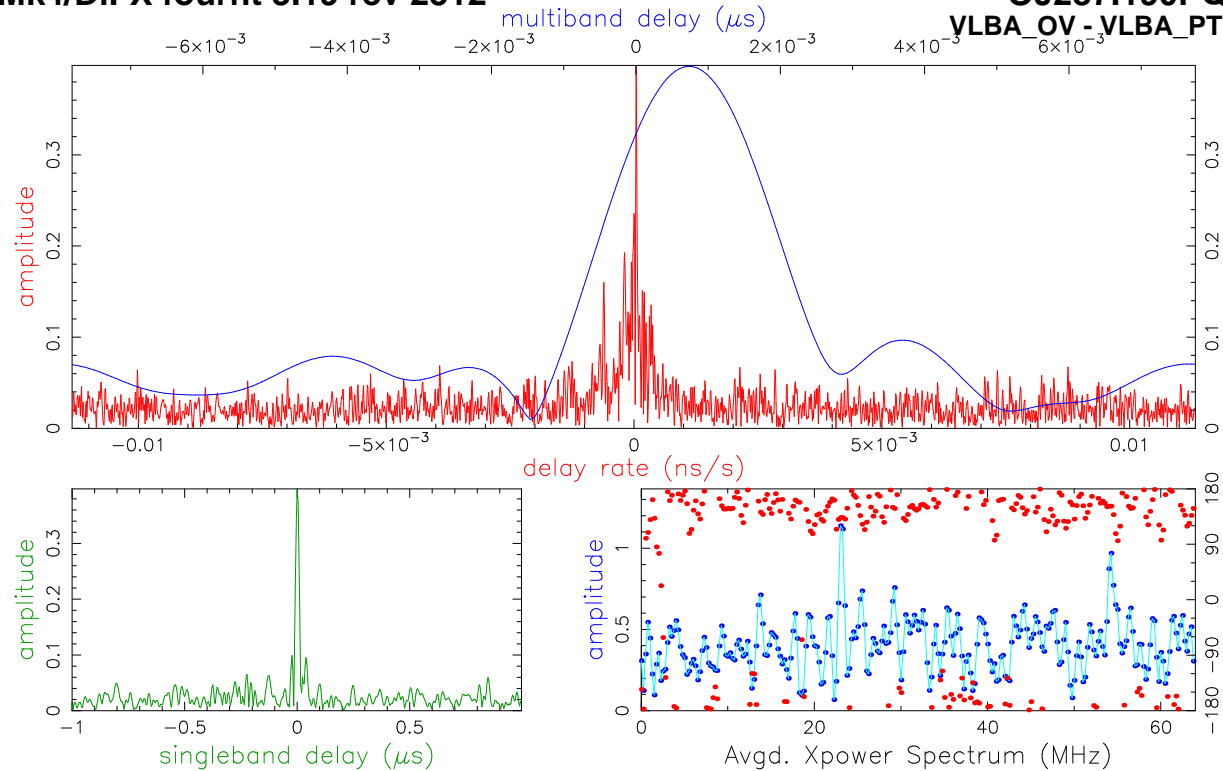
Exp. c201c
Yr:day 16383
Start 2020:117
Stop 2020:21840.00
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210832
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
	-15.8	-1.0	11.1	43.0	78.6	81.5	-8.3	-23.3		Phase
	708.4	1122.3	1213.3	1087.8	613.6	96.3	403.0	767.0		Ampl.
	257.0	257.6	257.4	257.5	257.5	255.1	257.2	256.4		Sbd box
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		APs used
o	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
o	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
o:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
o	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
o	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks
										Tracks
Group delay (usec)(sbd)	4.31062500000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		4.31063E-04	+/- 3.0E-08
Sband delay (usec)	-6.08750000000E-04		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-6.08750E-04	+/- 2.4E-07
Phase delay (usec)	3.97086904282E-07		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		3.97087E-07	+/- 1.0E-10
Delay rate (us/s)	-1.06992200557E-10		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-1.06992E-10	+/- 4.0E-13
Total phase (deg)	12.3		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		12.3	+/- 0.0

ph/seg (deg) 0.8 0.0 Theor. Amplitude 644.899 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.4 0.0 Search (2048X32) 642.745 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.2 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 58.2 0.0 Inc. seg. avg. 643.415 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 o: az 80.2 el 20.9 pa -56.7 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/oo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/oo.W.208.190PQ9 simultaneous interpolator

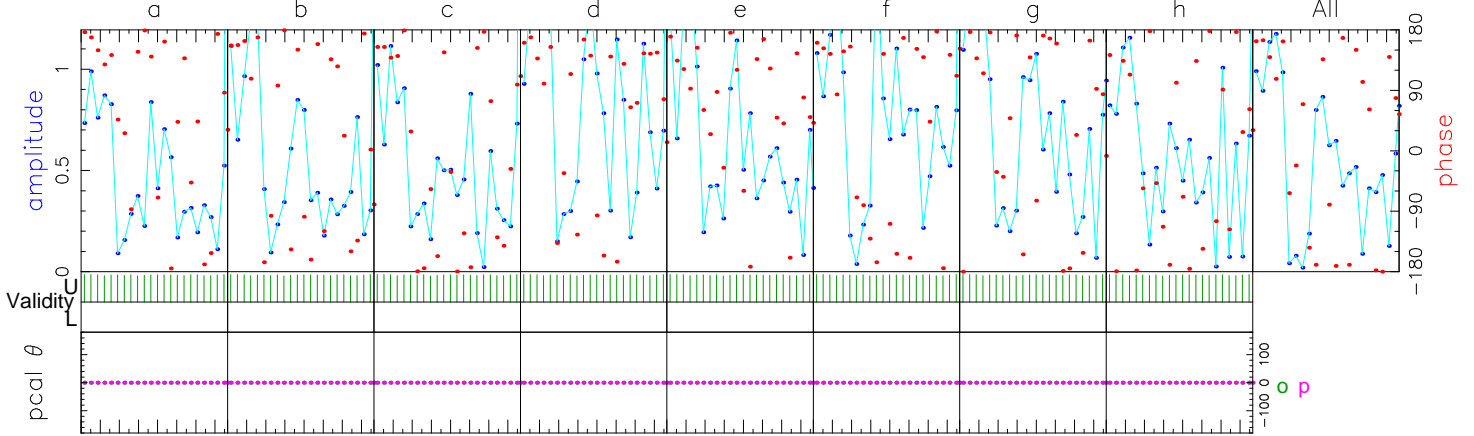


Fringe quality 9

SNR 22.6
 Int time 431.165
 Amp 0.398
 Phase 155.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.000679
 MBD 0.000757
 Fringe rate (Hz) 0.003503
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build
 2020:202:070201
 2020:202:210822
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

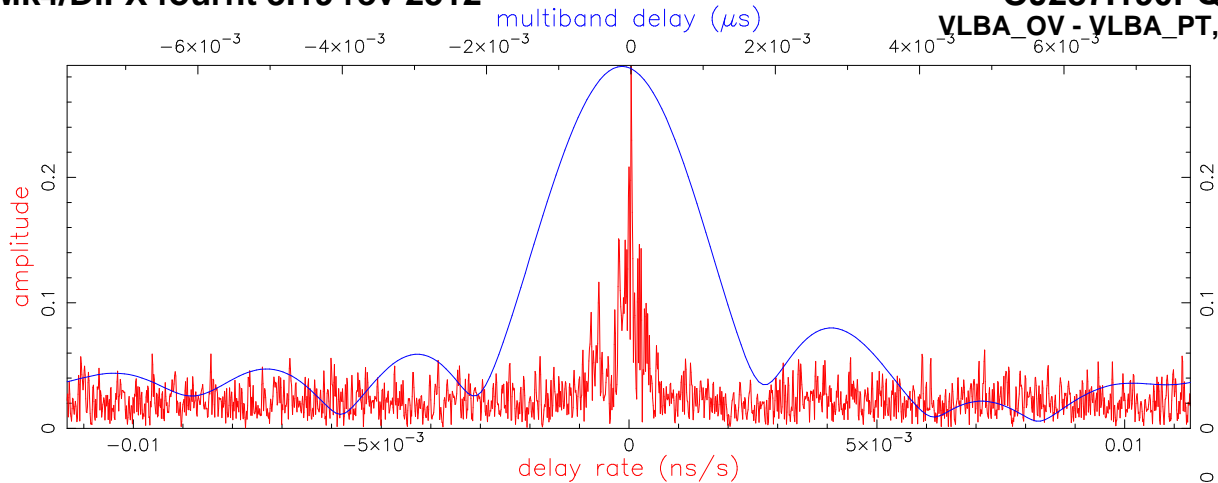


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
Group delay (usec)(sbd)	154.9	169.6	161.4	152.2	124.9	161.4	164.5	153.3	Phase	155.4
Sband delay (usec)	0.3	0.4	0.3	0.6	0.4	0.5	0.5	0.3	Ampl.	0.4
Phase delay (usec)	257.5	257.1	256.9	257.0	257.1	256.9	257.4	257.9	Sbd box	257.2
Delay rate (us/s)	U/L 859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
Total phase (deg)	o 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
	p 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
	o:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
	o:p 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
	o 1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
	p 1000	1000	1000	1000	1000	1000	1000	1000		
	o W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
	p W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)		-2.61584424360E+03		Apriori delay (usec)	-2.61584500105E+03		Resid mbdelay (usec)	7.57450E-04	+/-	4.8E-05
Sband delay (usec)		-2.61584432155E+03		Apriori clock (usec)	2.8084450E+00		Resid sbdelay (usec)	6.79500E-04	+/-	3.8E-04
Phase delay (usec)		-2.61584499604E+03		Apriori clockrate (us/s)	-2.9999874E-09		Resid phdelay (usec)	5.01178E-06	+/-	1.6E-07
Delay rate (us/s)		2.27025964839E-02		Apriori rate (us/s)	2.27025558234E-02		Resid rate (us/s)	4.06606E-08	+/-	6.4E-10
Total phase (deg)		14.7		Apriori accel (us/s/s)	1.55232849789E-05		Resid phase (deg)	155.4	+/-	5.1

ph/seg (deg) 68.8 12.2 Search (2048X32) 0.378 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 96.2 21.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 14.7 7.2 Inc. seg. avg. 0.532 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 25.6 12.5 Inc. frq. avg. 0.404 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 80.2 el 20.9 pa -56.7 p: az 84.3 el 28.7 pa -61.2 u,v (fr/asec) -113.116 789.819 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/op..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/op.W.164.190PQ9

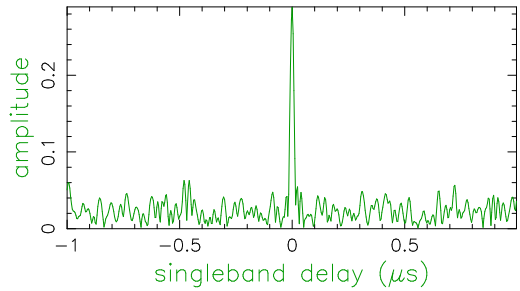
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, op VLBA_OV - VLBA_PT, fgroup W, pol RR

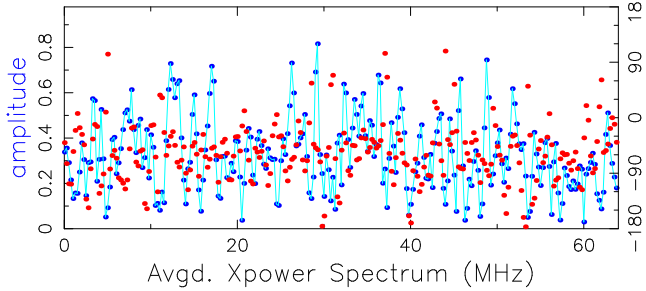


Fringe quality 9

SNR 16.4
 Int time 431.163
 Amp 0.289
 Phase -65.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.000701
 MBD -0.000141
 Fringe rate (Hz) 0.003377
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

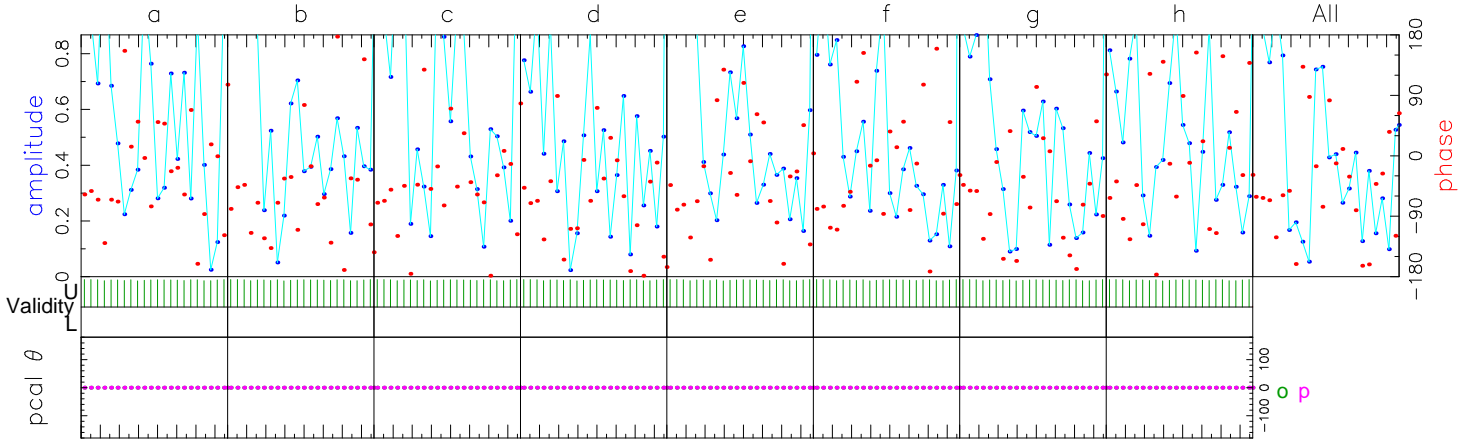


delay rate (ns/s)



Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build
 2020:202:070201
 2020:202:210827
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

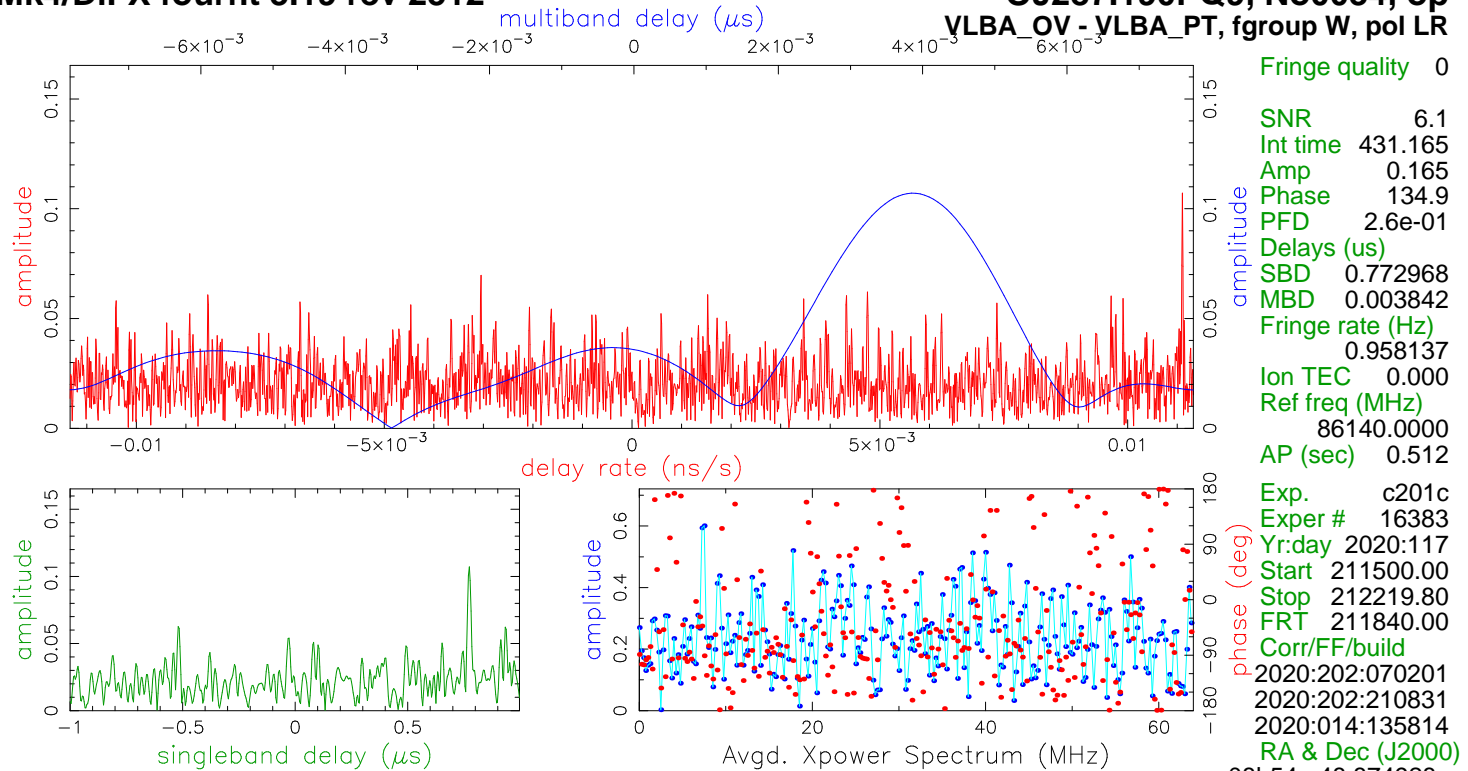


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-62.8	-80.6	-56.2	-62.9	-65.1	-71.8	-66.7	-59.3	Phase	-65.6
	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.2	Ampl.	0.3
	256.7	256.8	257.3	257.2	256.1	256.7	256.2	96.0	Sbd box	256.8
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.61584514223E+03		Apriori delay (usec)		-2.61584500105E+03		Resid mbdelay (usec)		-1.41175E-04	+/- 6.6E-05
Sband delay (usec)	-2.61584570255E+03		Apriori clock (usec)		2.8084450E+00		Resid sbdelay (usec)		-7.01500E-04	+/- 5.2E-04
Phase delay (usec)	-2.61584500317E+03		Apriori clockrate (us/s)		-2.9999874E-09		Resid phdelay (usec)		-2.11618E-06	+/- 2.3E-07
Delay rate (us/s)	2.27025950215E-02		Apriori rate (us/s)		2.27025558234E-02		Resid rate (us/s)		3.91981E-08	+/- 8.9E-10
Total phase (deg)			Apriori accel (us/s/s)		1.55232849789E-05		Resid phase (deg)		-65.6	+/- 7.0

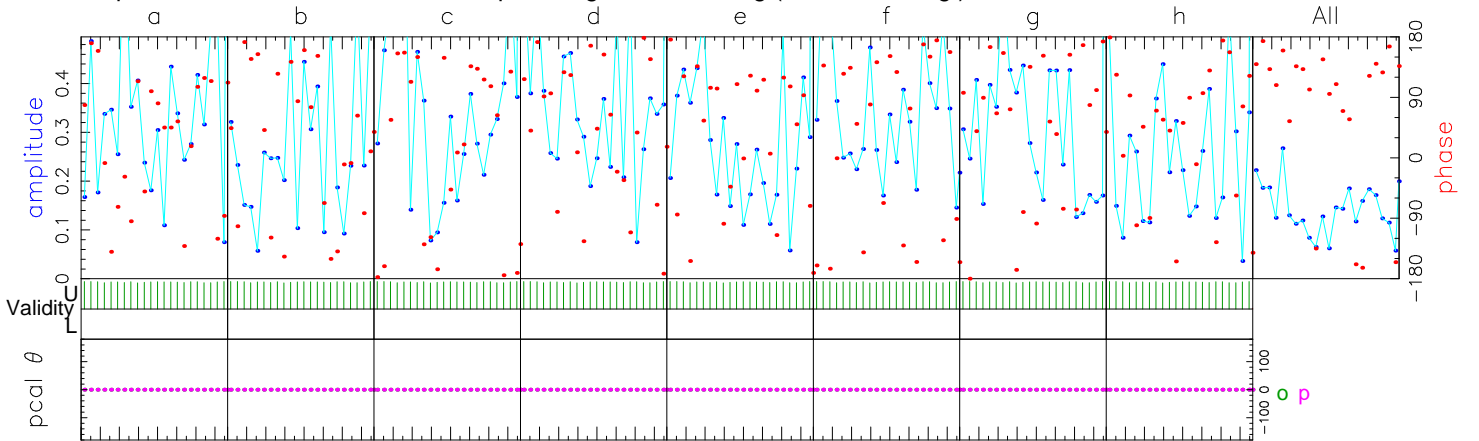
ph/seg (deg) 77.2 16.7 Search (2048X32) 0.272 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 115.1 29.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 8.2 9.9 Inc. seg. avg. 0.430 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 20.9 17.2 Inc. frq. avg. 0.287 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 o: az 80.2 el 20.9 pa -56.7 p: az 84.3 el 28.7 pa -61.2 u,v (fr/asec) -113.116 789.819 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/op..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/op.W.181.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, op VLBA_OV - VLBA_PT, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
85.5	125.8	147.0	134.7	116.6	163.4	119.1	119.3	119.3	Phase	134.9
0.1	0.1	0.3	0.1	0.2	0.3	0.2	0.1	0.1	Ampl.	0.2
76.4	443.9	455.0	495.9	163.9	456.5	135.2	206.6	206.6	Sbd box	454.9
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
p	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.61507553371E+03		Apriori delay (usec)	-2.61584500105E+03	Resid mbdelay (usec)	3.84234E-03	+/-	1.8E-04		
Sband delay (usec)	-2.61507203355E+03		Apriori clock (usec)	2.8084450E+00	Resid sbdelay (usec)	7.72968E-01	+/-	1.4E-03		
Phase delay (usec)	-2.61584499670E+03		Apriori clockrate (us/s)	-2.9999874E-09	Resid phdelay (usec)	4.35137E-06	+/-	6.1E-07		
Delay rate (us/s)	2.27136788480E-02		Apriori rate (us/s)	2.27025558234E-02	Resid rate (us/s)	1.11230E-05	+/-	2.4E-09		
Total phase (deg)		-5.7	Apriori accel (us/s/s)	1.55232849789E-05	Resid phase (deg)	134.9	+/-	18.8		

	RMS	Theor.	Amplitude	0.165 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	45.5	45.1	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	57.2	78.8	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	26.8	26.6	Inc. seg. avg.	0.166	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	49.9	46.5	Inc. frq. avg.	0.159	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

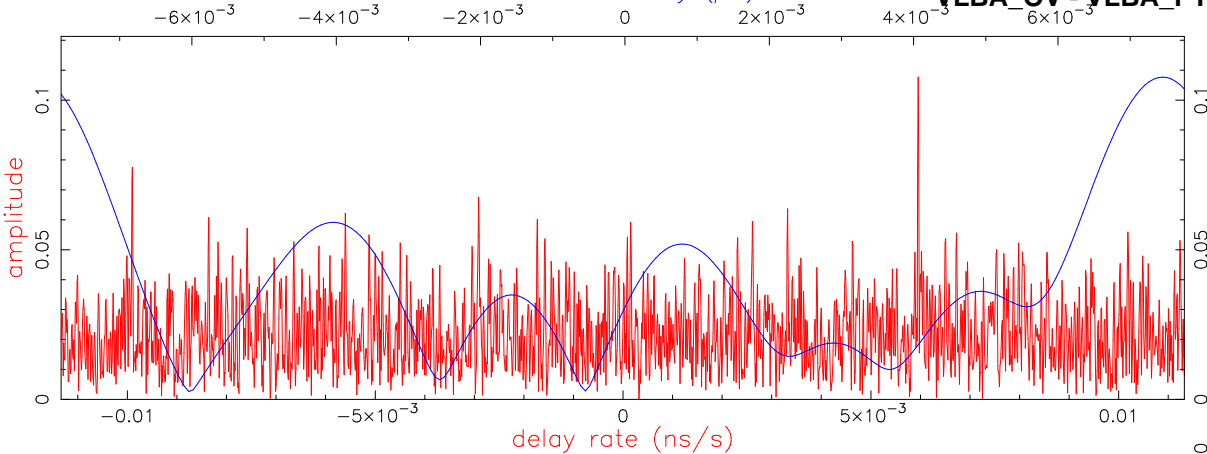
o: az 80.2 el 20.9 pa -56.7 p: az 84.3 el 28.7 pa -61.2 u,v (fr/asec) -113.116 789.819 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/op..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/op.W.199.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

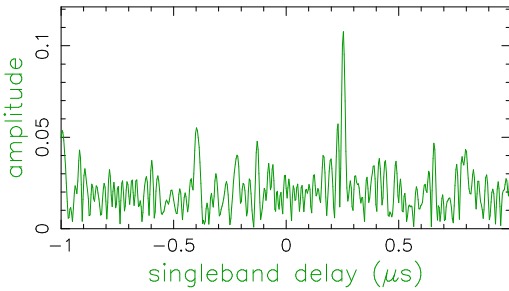
OJ287.190PQ9, No0034, op
VLBA_OV - VLBA_PT, fgroup W, pol RL

multiband delay (μs)

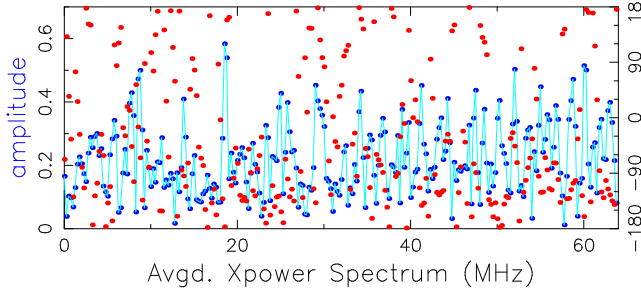


Fringe quality 0

SNR 6.1
Int time 431.163
Amp 0.121
Phase -172.2
PFD 2.1e-01
Delays (us)
SBD 0.253283
MBD 0.007422
Fringe rate (Hz)
0.513987
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

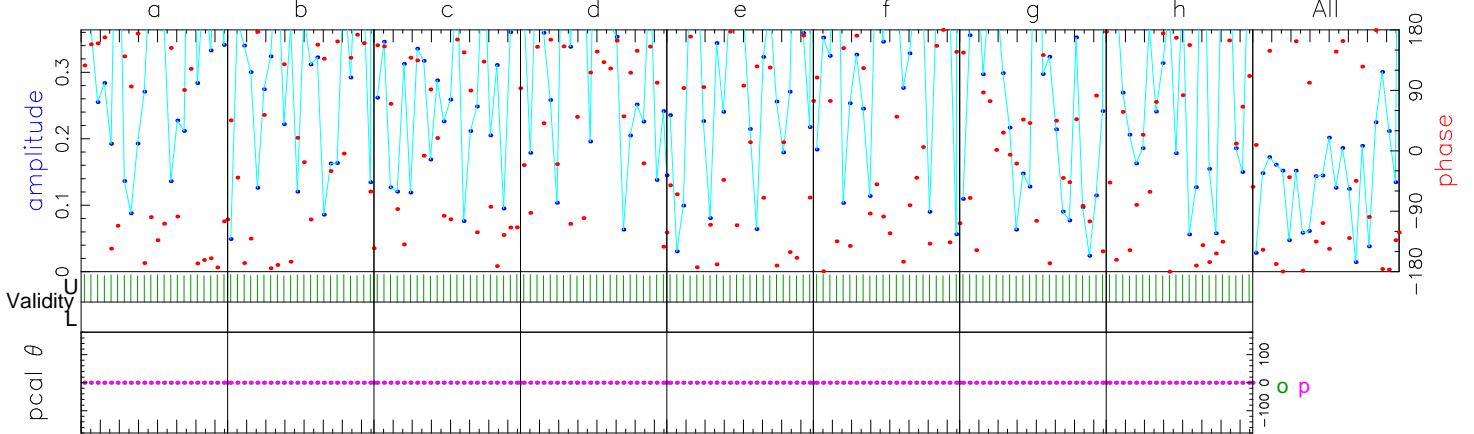


delay rate (ns/s)



Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210834
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

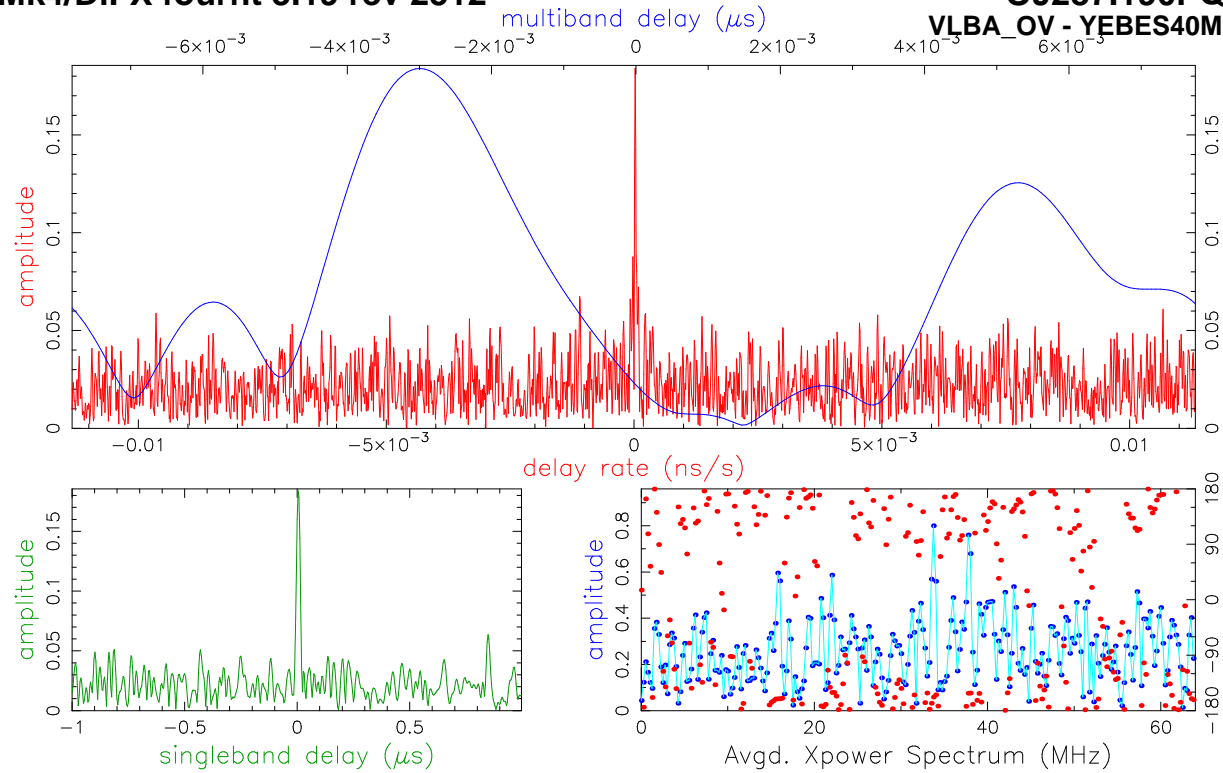


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-165.9	-169.8	-170.5	145.6	-169.1	-141.1	-3.1	-175.1	Phase	-172.2
	0.3	0.1	0.1	0.2	0.1	0.2	0.0	0.1	Ampl.	0.1
	321.2	372.4	498.2	321.4	140.8	387.2	459.8	156.5	Sbd box	321.8
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
p	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:p	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
p	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-2.61558757869E+03	Apriori delay (usec)	-2.61584500105E+03	Resid mbdelay (usec)	7.42236E-03	+/-	1.8E-04
Sband delay (usec)	-2.61559171780E+03	Apriori clock (usec)	2.8084450E+00	Resid sbdelay (usec)	2.53283E-01	+/-	1.4E-03
Phase delay (usec)	-2.61584500661E+03	Apriori clockrate (us/s)	-2.9999874E-09	Resid phdelay (usec)	-5.55250E-06	+/-	6.0E-07
Delay rate (us/s)	2.27085227040E-02	Apriori rate (us/s)	2.27025558234E-02	Resid rate (us/s)	5.96688E-06	+/-	2.4E-09
Total phase (deg)	-312.9	Apriori accel (us/s/s)	1.55232849789E-05	Resid phase (deg)	-172.2	+/-	18.7

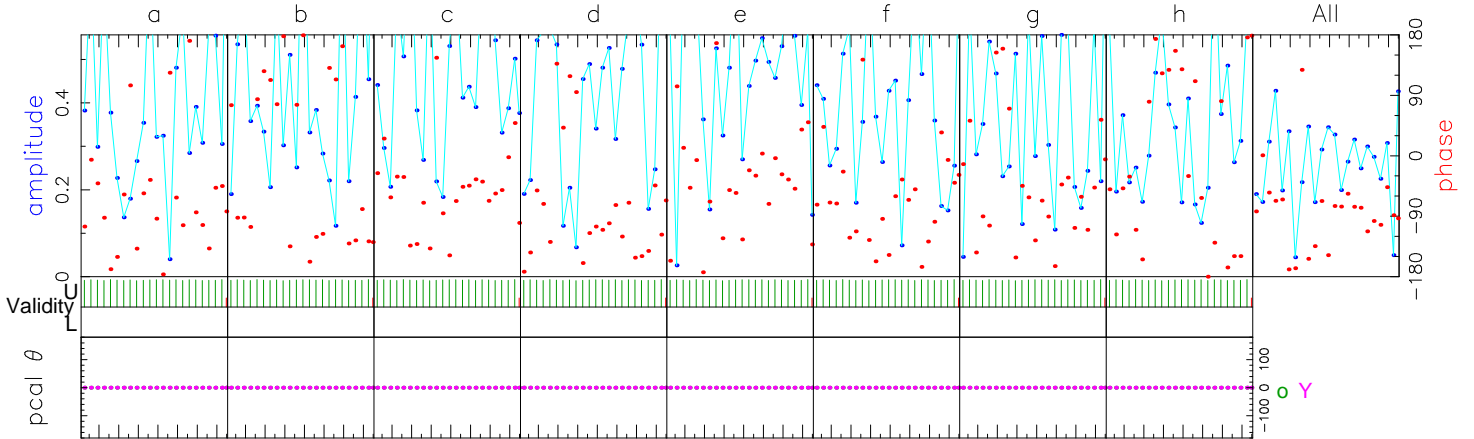
ph/seg (deg)	66.7	RMS	44.8	Theor.	44.8	Amplitude	0.121 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	74.8	Search (2048X32)	0.104	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	72.3	Inc. seg. avg.	0.119	Inc. frq. avg.	0.122	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	53.0	Inc. frq. avg.	0.122	u,v (fr/asec)	-113.116 789.819	Sample rate (MSamp/s):	128	nlags:	256	t_cohere	infinite
						Data rate (Mb/s):	2048	ion window (TEC)	0.00	0.00	

o: az 80.2 el 20.9 pa -56.7 p: az 84.3 el 28.7 pa -61.2 u,v (fr/asec) -113.116 789.819 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/op..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/op.W.216.190PQ9



Fringe quality 9
SNR 10.5
Int time 425.433
Amp 0.186
Phase -90.8
PFD 5.6e-17
Delays (us)
SBD 0.005178
MBD -0.002965
Fringe rate (Hz) 0.001465
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211505.12
Stop 212219.80
FRT 211840.00
Corr/FF/build 2020:202:070201
2020:202:210824
2020:014:135814
RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 38 APs / seg (19.46 sec / seg.), time ticks 30 sec

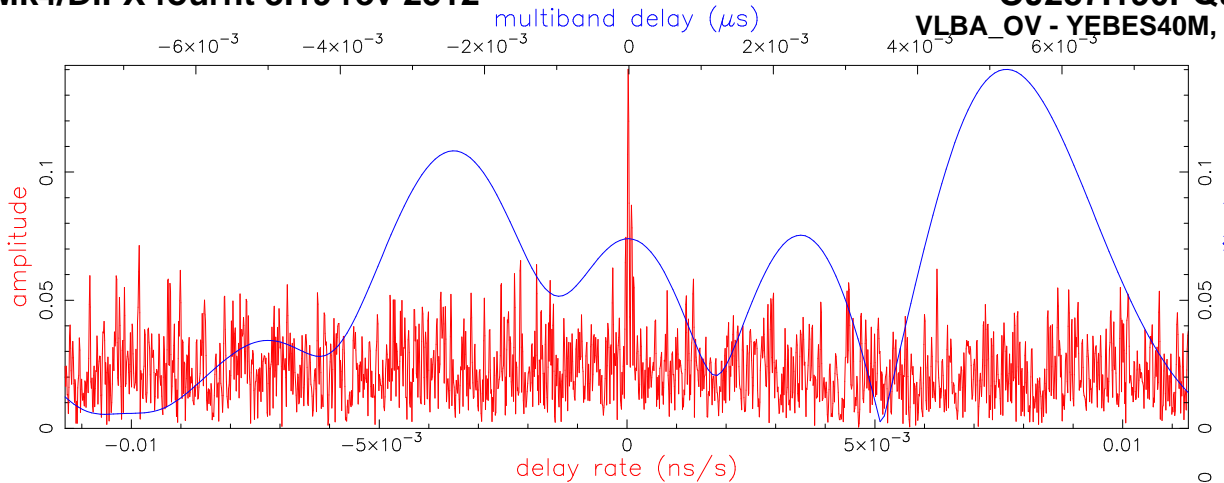


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-84.9	-153.0	-63.2	-115.0	-35.2	-91.0	-73.1	-167.9	Phase	-90.8
	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.1	Ampl.	0.2
	258.8	257.4	257.7	257.9	257.2	257.6	257.0	255.0	Sbd box	258.3
U/L	849/0	849/0	849/0	849/0	849/0	849/0	849/0	849/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.81089444667E+03		Apriori delay (usec)		-8.81090710655E+03		Resid mbdelay (usec)		-2.96512E-03	+/- 1.0E-04
Sband delay (usec)	-8.81090192855E+03		Apriori clock (usec)		8.1194887E+08		Resid sbdelay (usec)		5.17800E-03	+/- 8.2E-04
Phase delay (usec)	-8.81090710948E+03		Apriori clockrate (us/s)		-1.8999993E-08		Resid phdelay (usec)		-2.92914E-06	+/- 3.5E-07
Delay rate (us/s)	1.81550461479E+00		Apriori rate (us/s)		1.81550459779E+00		Resid rate (us/s)		1.70054E-08	+/- 1.4E-09
Total phase (deg)			Apriori accel (us/s/s)		4.51662708254E-05		Resid phase (deg)		-90.8	+/- 11.0

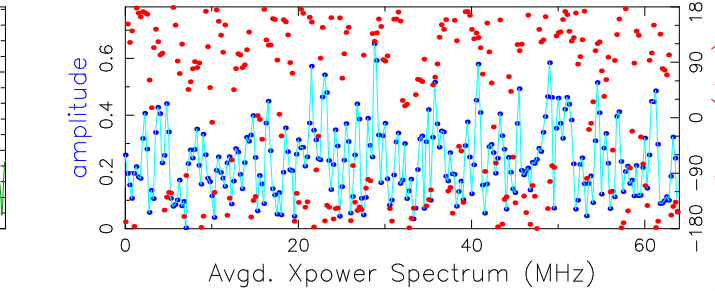
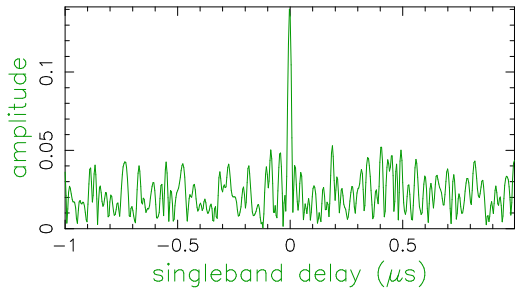
ph/seg (deg) 50.6 26.3 Amplitude 0.186 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 62.7 45.8 Search (2048X32) 0.173 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 49.3 15.5 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 40.7 27.0 Inc. seg. avg. 0.231 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 o: az 80.2 el 20.9 pa -56.7 Y: az 247.9 el 52.6 pa 48.4 u,v (fr/asec) -10990.235 982.053 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/oY..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/oY.W.172.190PQ9 simultaneous interpolator

Mk4/DiFX fourfit 3.19 rev 2512

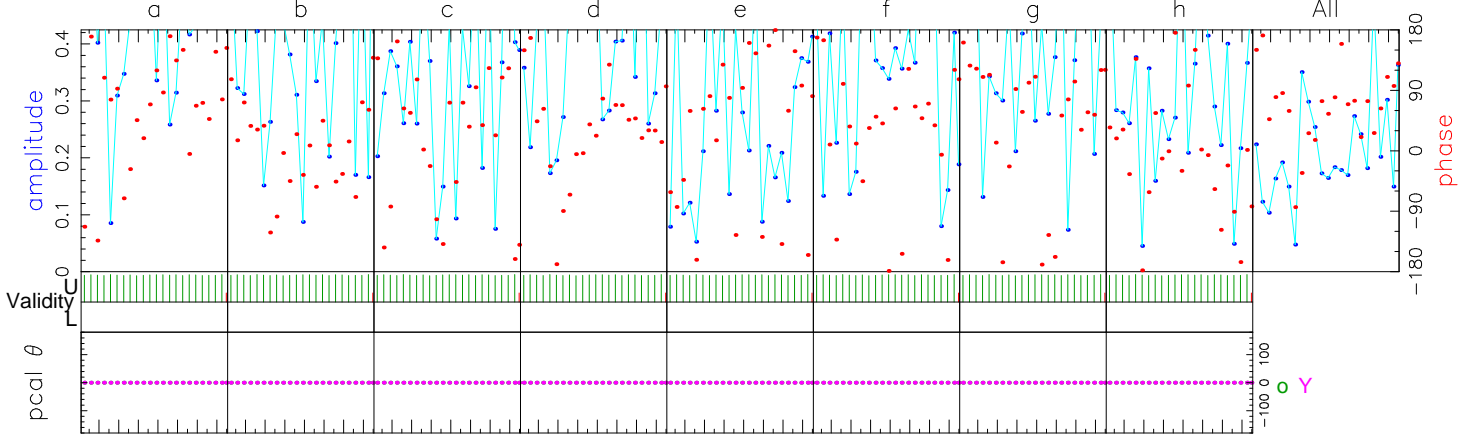
OJ287.190PQ9, No0034, oY
VLBA_OV - YEBES40M, fgroup W, pol RR



Fringe quality 9
SNR 8.0
Int time 425.430
Amp 0.142
Phase 63.1
PFD 4.7e-07
Delays (us)
SBD -0.002614
MBD 0.005240
Fringe rate (Hz) 0.001806
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211505.12
Stop 212219.80
FRT 211840.00
Corr/FF/build 2020:202:070201
2020:202:210828
2020:014:135814
RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"



Amp. and Phase vs. time for each freq., 23 segs, 38 APs / seg (19.46 sec / seg.), time ticks 30 sec



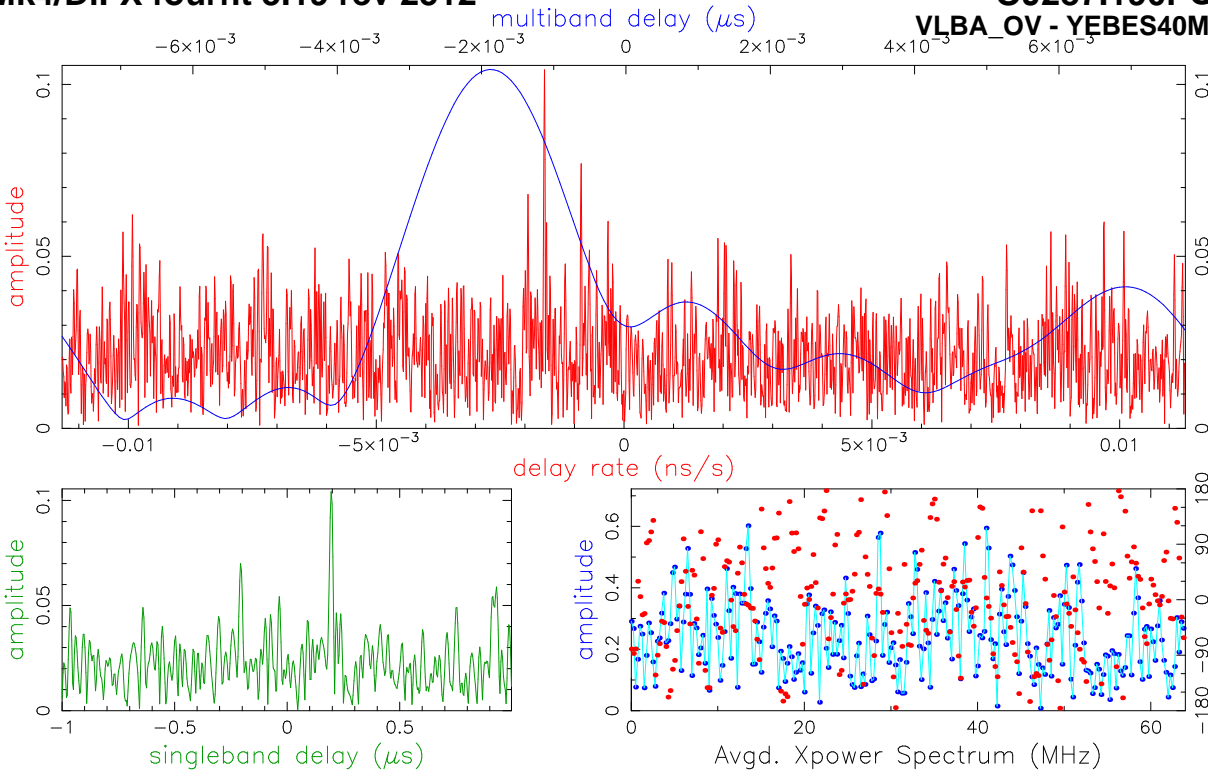
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	95.7	12.7	94.8	37.1	137.4	66.4	102.0	-6.2	Phase	63.1
	0.2	0.2	0.1	0.3	0.1	0.2	0.2	0.1	Ampl.	0.2
	256.1	255.7	377.0	255.8	280.5	255.3	255.3	360.3	Sbd box	256.3
U/L	849/0	849/0	849/0	849/0	849/0	849/0	849/0	849/0	APs used	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.81091749164E+03		Apriori delay (usec)		-8.81090710655E+03		Resid mbdelay (usec)		5.23991E-03	+/- 1.4E-04
Sband delay (usec)	-8.81090972080E+03		Apriori clock (usec)		8.1194887E+00		Resid sbdelay (usec)		-2.61425E-03	+/- 1.1E-03
Phase delay (usec)	-8.81090710452E+03		Apriori clockrate (us/s)		-1.8999993E-08		Resid phdelay (usec)		2.03428E-06	+/- 4.6E-07
Delay rate (us/s)	1.81550461875E+00		Apriori rate (us/s)		1.81550459779E+00		Resid rate (us/s)		2.09676E-08	+/- 1.8E-09
Total phase (deg)	6.1		Apriori accel (us/s/s)		4.51662708254E-05		Resid phase (deg)		63.1	+/- 14.3

ph/seg (deg) 57.0 34.4 Search (2048X32) 0.139 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 80.7 60.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 53.4 20.3 Inc. seg. avg. 0.179 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 49.1 35.4 Inc. frq. avg. 0.177 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
o: az 80.2 el 20.9 pa -56.7 Y: az 247.9 el 52.6 pa 48.4 u,v (fr/asec) -10990.235 982.053 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/oY..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/oY.W.189.190PQ9

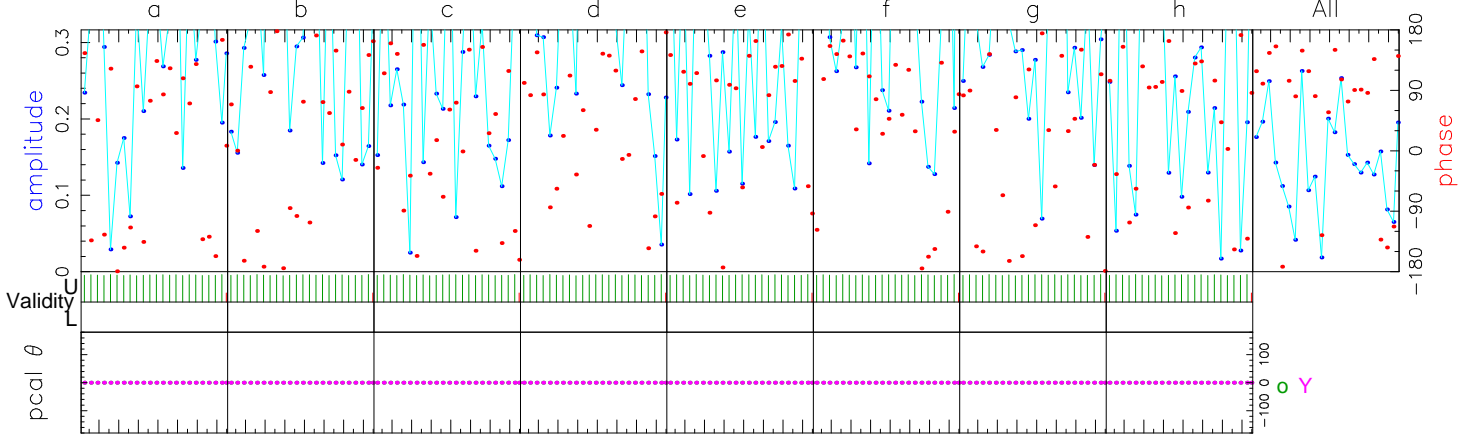
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, oY
VLBA_OV - YEYES40M, fgroup W, pol LR



Fringe quality 0
SNR 5.9
Int time 425.433
Amp 0.106
Phase 122.6
PFD 6.0e-01
Delays (us)
SBD 0.196116
MBD -0.001829
Fringe rate (Hz)
-0.138246
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211505.12
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210832
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 38 APs / seg (19.46 sec / seg.), time ticks 30 sec

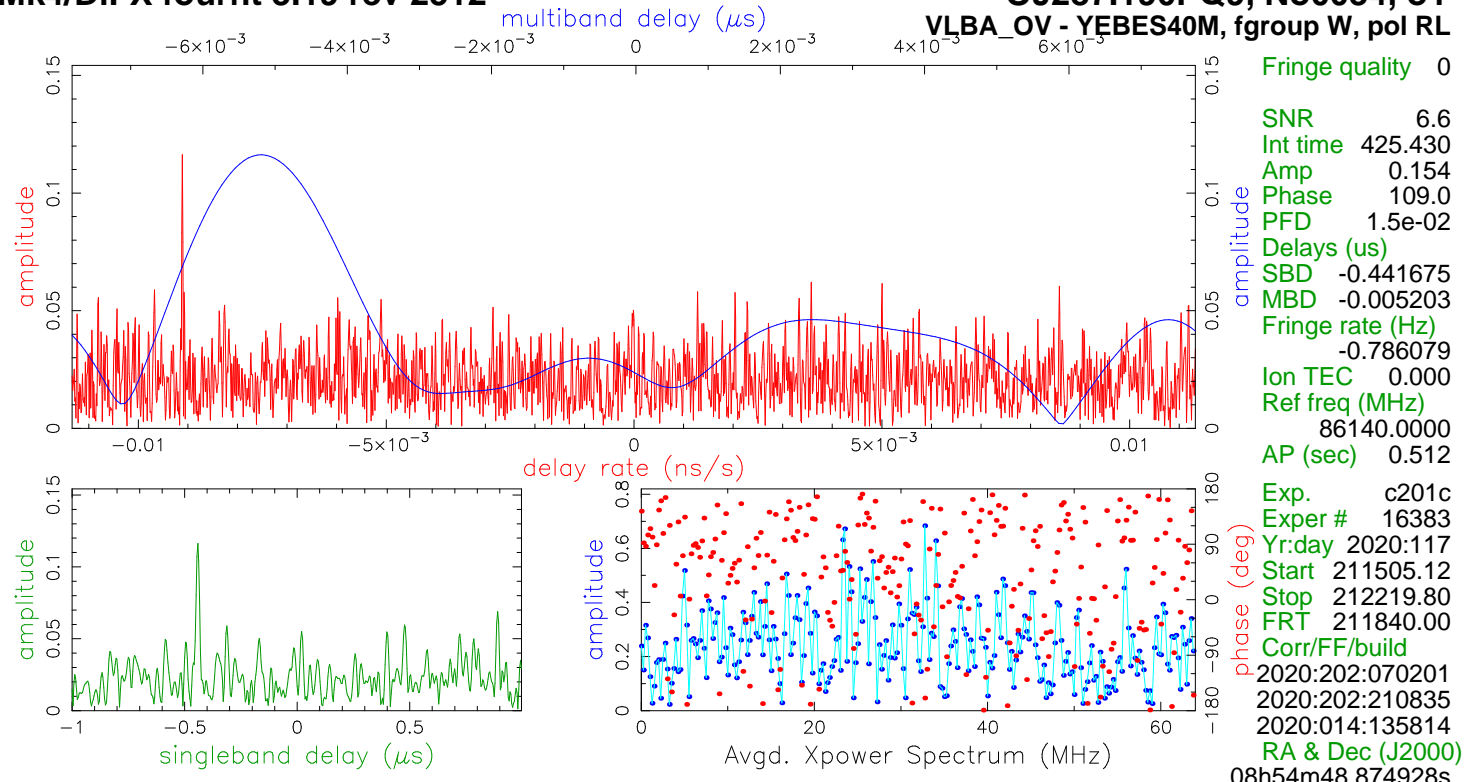


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	849/0	849/0	849/0	849/0	849/0	849/0	849/0	849/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

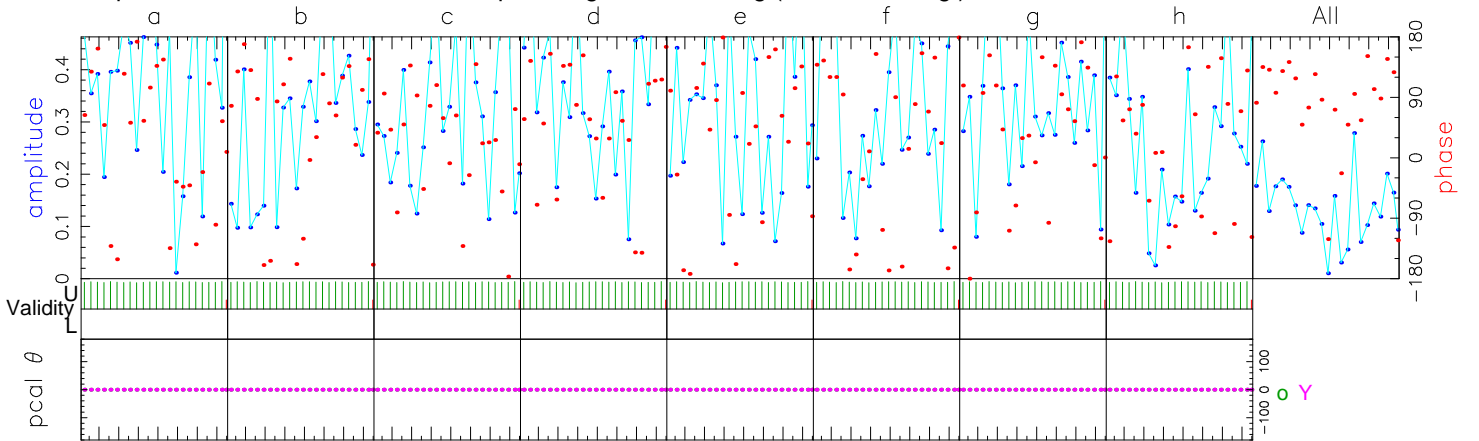
Group delay (usec)(sbd)	-8.81070581078E+03	Apriori delay (usec)	-8.81090710655E+03	Resid mbdelay (usec)	-1.82923E-03	+/-	1.8E-04
Sband delay (usec)	-8.81071099030E+03	Apriori clock (usec)	8.1194887E+08	Resid sbdelay (usec)	1.96116E-01	+/-	1.5E-03
Phase delay (usec)	-8.81090710260E+03	Apriori clockrate (us/s)	-1.8999993E-08	Resid phdelay (usec)	3.95311E-06	+/-	6.3E-07
Delay rate (us/s)	1.81550299288E+00	Apriori rate (us/s)	1.81550459779E+00	Resid rate (us/s)	-1.60490E-06	+/-	2.5E-09
Total phase (deg)		Apriori accel (us/s/s)	4.51662708254E-05	Resid phase (deg)	122.6	+/-	19.4

	RMS	Theor.	Amplitude	0.106 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	56.2	46.5	Search (2048X32)	0.103	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	71.4	81.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	23.2	27.5	Inc. seg. avg.	0.109	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	38.5	47.9	Inc. frq. avg.	0.100	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

o: az 80.2 el 20.9 pa -56.7 Y: az 247.9 el 52.6 pa 48.4 u,v (fr/asec) -10990.235 982.053 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/oY..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/oY.W.203.190PQ9



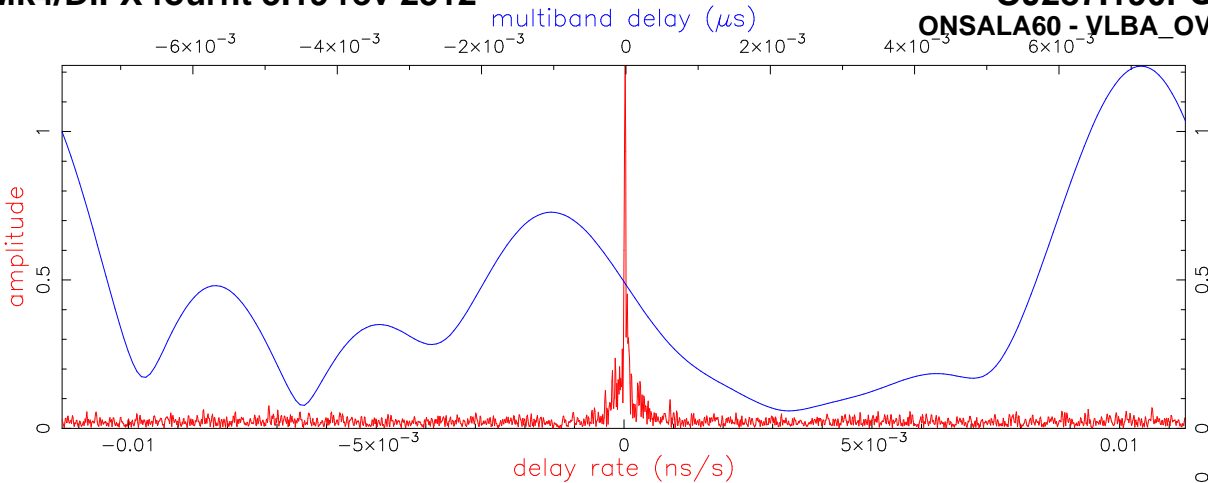
Amp. and Phase vs. time for each freq., 23 segs, 38 APs / seg (19.46 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
Group delay (usec)(sbd)	-8.81134980934E+03									
Sband delay (usec)	-8.81134878105E+03									
Phase delay (usec)	-8.81090710304E+03									
Delay rate (us/s)	1.81549547218E+00									
Total phase (deg)			52.0							
U/L	849/0	849/0	849/0	849/0	849/0	849/0	849/0	849/0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)		-8.81134980934E+03				-8.81090710655E+03			Resid mbdelay (usec)	-5.20279E-03 +/- 1.7E-04
Sband delay (usec)		-8.81134878105E+03				8.1194887E+08			Resid sbdelay (usec)	-4.41675E-01 +/- 1.3E-03
Phase delay (usec)		-8.81090710304E+03				-1.8999993E-08			Resid phdelay (usec)	3.51515E-06 +/- 5.6E-07
Delay rate (us/s)		1.81549547218E+00				1.81550459779E+00			Resid rate (us/s)	-9.12560E-06 +/- 2.2E-09
Total phase (deg)			52.0			4.51662708254E-05			Resid phase (deg)	109.0 +/- 17.5
ph/seg (deg)	52.4	41.9		Search (2048X32)	0.111				Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	58.5	73.1		Interp.	0.000				Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	33.7	24.7		Inc. seg. avg.	0.145				Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%)	35.8	43.1		Inc. frq. avg.	0.162				Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
o: az 80.2 el 20.9 pa -56.7				Y: az 247.9 el 52.6 pa 48.4					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/c201c/v1/1234/No0034/oY..190PQ9					Output file: /Exps/c201c/v1/1234/No0034/oY.W.220.190PQ9	

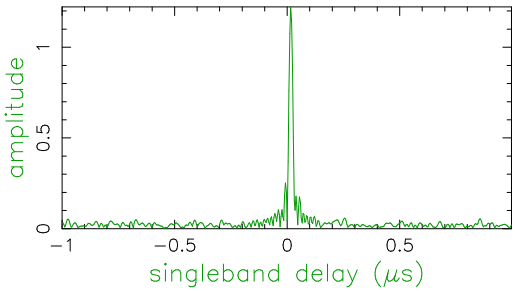
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, Xo
 ONSALA60 - VLBA_OV, fgroup W, pol LL

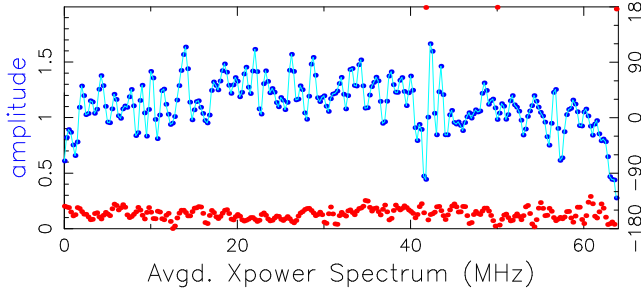


Fringe quality 3

SNR 69.5
 Int time 431.745
 Amp 1.223
 Phase -52.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.016223
 MBD 0.007156
 Fringe rate (Hz)
 0.002021
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

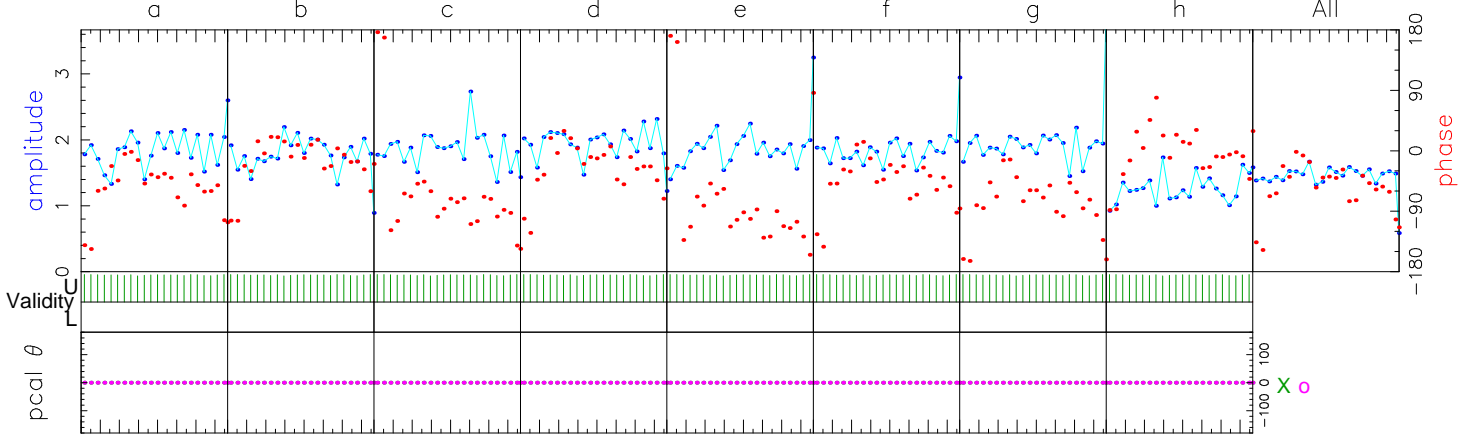


delay rate (ns/s)



Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build
 2020:202:070201
 2020:202:210823
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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
	-52.2	-12.6	-90.5	-22.8	-106.2	-44.7	-73.9	-2.7	Phase	-52.2
	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.0	Ampl.	1.5
	261.4	261.5	261.1	261.8	261.7	261.7	261.8	262.8	Sbd box	261.2
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.74408303372E+03	Apriori delay (usec)	4.74406025313E+03	Resid mbdelay (usec)	7.15558E-03	+/-	1.6E-05
Sband delay (usec)	4.74407647663E+03	Apriori clock (usec)	2.0692404E+01	Resid sbdelay (usec)	1.62235E-02	+/-	1.2E-04
Phase delay (usec)	4.74406025145E+03	Apriori clockrate (us/s)	3.2700001E-07	Resid phdelay (usec)	-1.68220E-06	+/-	5.3E-08
Delay rate (us/s)	-1.76174677527E+00	Apriori rate (us/s)	-1.76174679873E+00	Resid rate (us/s)	2.34603E-08	+/-	2.1E-10
Total phase (deg)		Apriori accel (us/s/s)	-1.59342984537E-05	Resid phase (deg)	-52.2	+/-	1.6

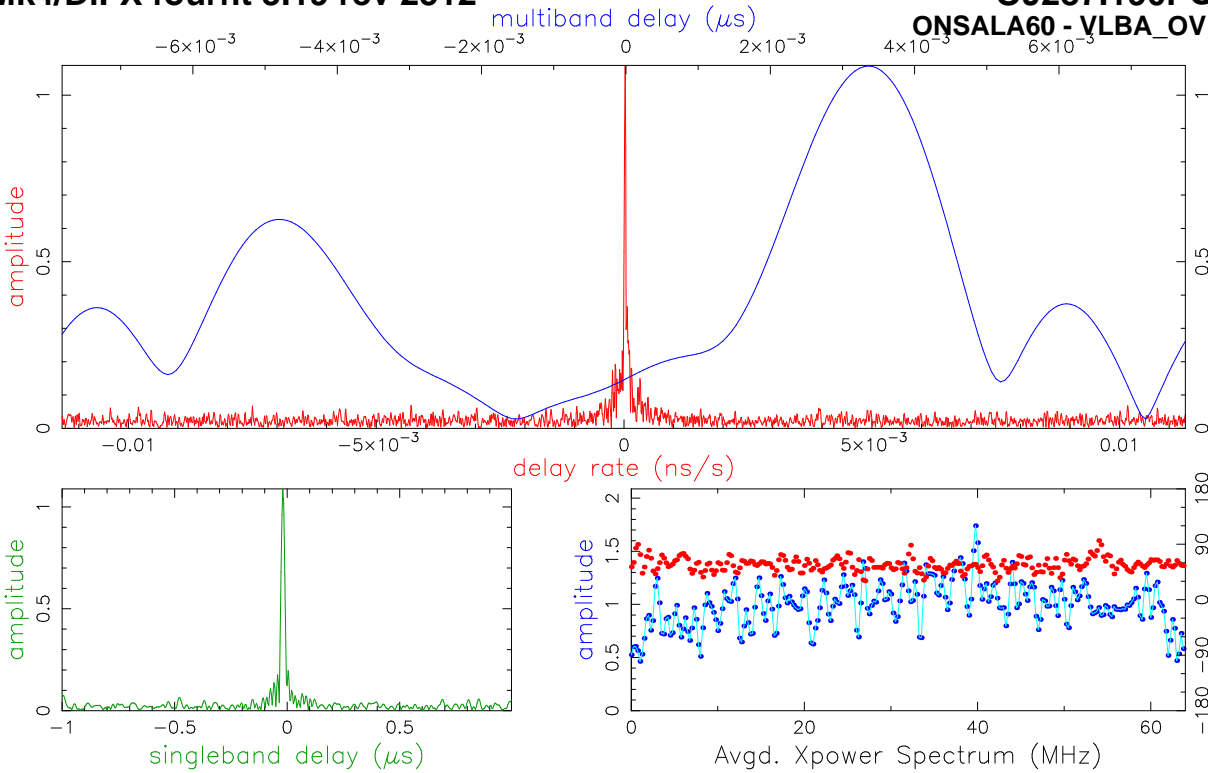
ph/seg (deg)	RMS 36.1	Theor. 4.0	Amplitude Search (2048X32)	1.223 +/- 0.018	1.197	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	21.6	6.9	Interp.	0.000		Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	40.4	2.3	Inc. seg. avg.	1.467		Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	24.3	4.1	Inc. frq. avg.	1.469		Data rate(Mb/s): 2048	nlags: 256	ion window (TEC)	0.00	0.00

X: az 247.5 el 37.0 pa 32.1 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 10708.696 1462.512 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Xo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Xo.W.168.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, Xo
ONSALA60 - VLBA_OV, fgroup W, pol RR

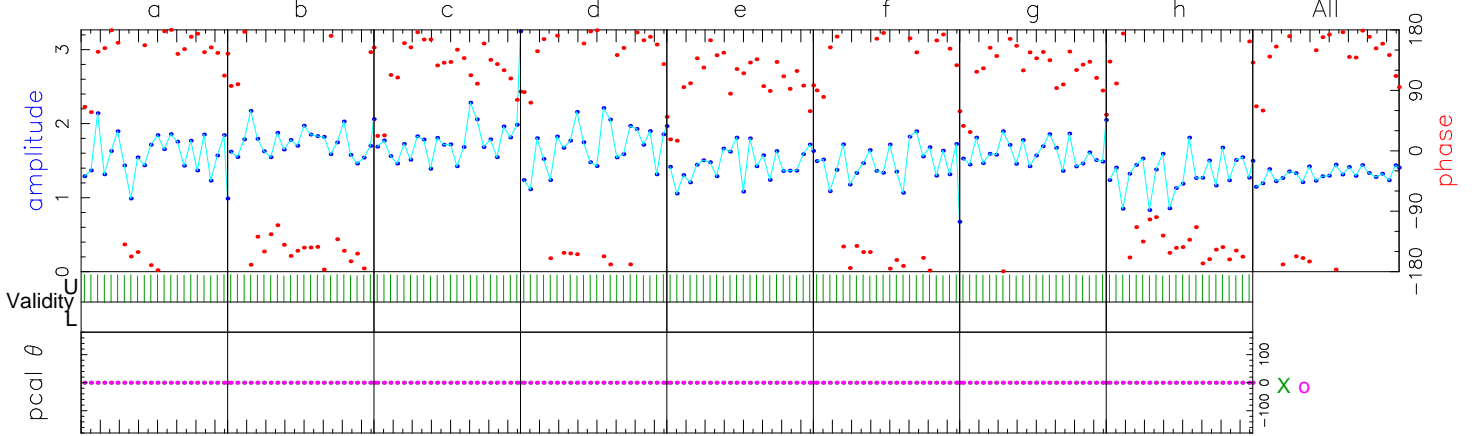


Fringe quality 3

SNR 61.9
Int time 431.742
Amp 1.089
Phase 159.3
PFD 0.0e+00
Delays (us)
SBD -0.018956
MBD 0.003380
Fringe rate (Hz)
0.001955
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210828
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

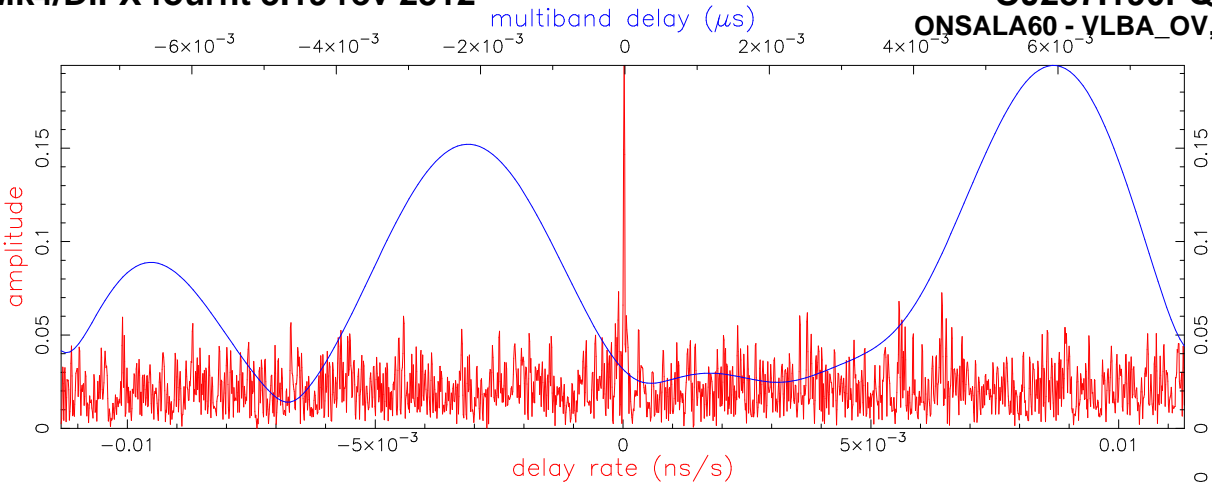
Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	161.1	-159.8	125.4	171.7	109.5	172.7	127.0	-149.9	Phase	159.3
	1.3	1.4	1.4	1.4	1.2	1.2	1.3	1.1	Ampl.	1.3
	253.1	252.2	252.1	252.6	253.1	252.5	252.9	253.4	Sbd box	252.1
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.74404800800E+03		Apriori delay (usec)		4.74406025313E+03		Resid mbdelay (usec)		3.37987E-03	+/- 1.8E-05
Sband delay (usec)	4.74404129738E+03		Apriori clock (usec)		2.0692404E+01		Resid sbdelay (usec)		-1.89558E-02	+/- 1.4E-04
Phase delay (usec)	4.74406025827E+03		Apriori clockrate (us/s)		3.2700001E-07		Resid phdelay (usec)		5.13845E-06	+/- 6.0E-08
Delay rate (us/s)	-1.76174677603E+00		Apriori rate (us/s)		-1.76174679873E+00		Resid rate (us/s)		2.26937E-08	+/- 2.4E-10
Total phase (deg)	233.1		Apriori accel (us/s/s)		-1.59342984537E-05		Resid phase (deg)		159.3	+/- 1.9

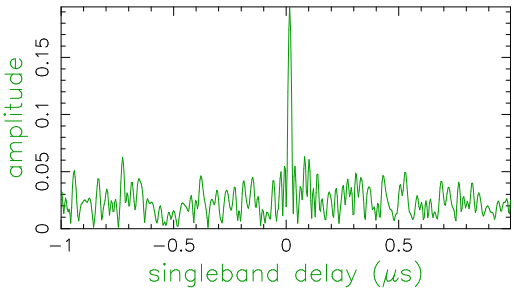
ph/seg (deg) 37.3 4.4 Search (2048X32) 1.084 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 21.9 7.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 39.3 2.6 Inc. seg. avg. 1.309 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 21.8 4.6 Inc. frq. avg. 1.295 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
X: az 247.5 el 37.0 pa 32.1 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 10708.696 1462.512 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Xo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Xo.W.188.190PQ9

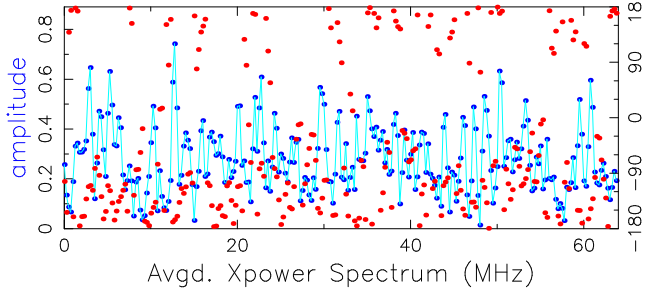


Fringe quality 9

SNR 11.0
Int time 431.742
Amp 0.194
Phase -27.1
PFD 1.1e-19
Delays (us)
SBD 0.015575
MBD 0.005934
Fringe rate (Hz) 0.002094
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

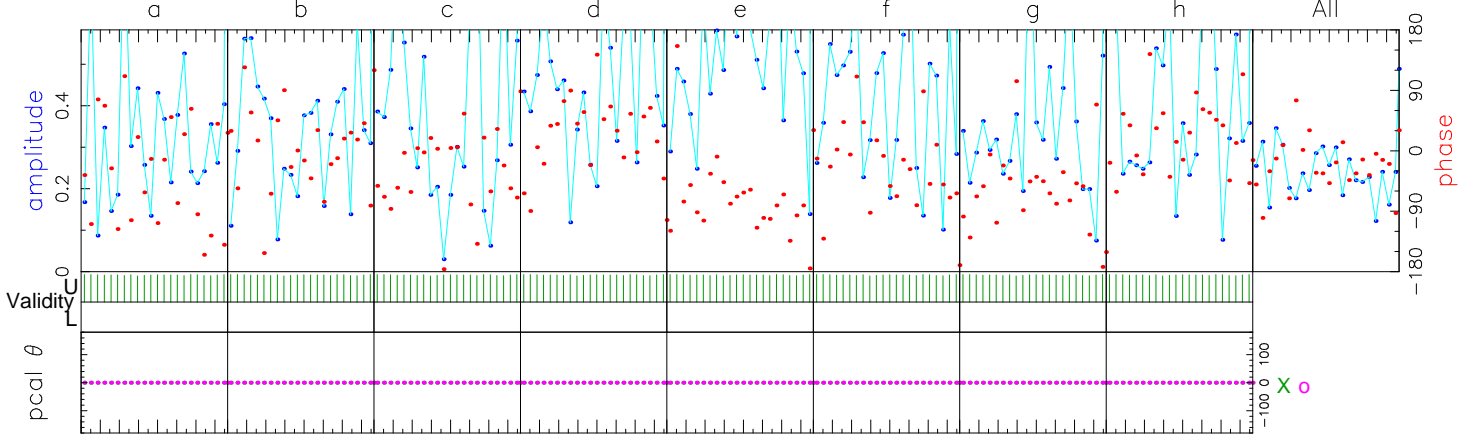


delay rate (ns/s)



Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210832
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

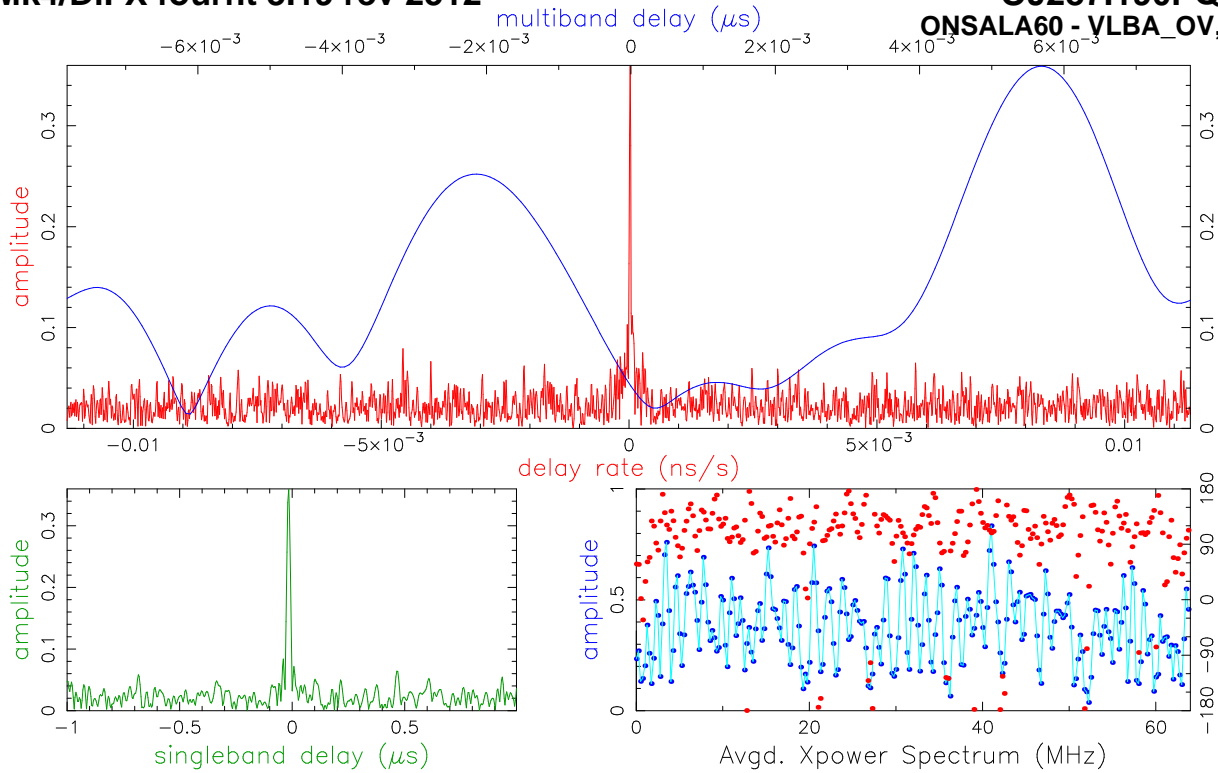
Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-52.8	5.3	-43.3	28.0	-81.9	-19.8	-63.9	18.0	Phase	-27.1
	0.1	0.2	0.3	0.3	0.4	0.3	0.2	0.3	Ampl.	0.2
	265.4	463.6	261.2	261.2	261.0	261.4	261.0	262.5	Sbd box	261.0
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.74408181234E+03		Apriori delay (usec)		4.74406025313E+03		Resid mbdelay (usec)		5.93421E-03	+/- 9.8E-05
Sband delay (usec)	4.74407582813E+03		Apriori clock (usec)		2.0692404E-01		Resid sbdelay (usec)		1.55750E-02	+/- 7.8E-04
Phase delay (usec)	4.74406025226E+03		Apriori clockrate (us/s)		3.2700001E-07		Resid phdelay (usec)		-8.73138E-07	+/- 3.3E-07
Delay rate (us/s)	-1.76174677442E+00		Apriori rate (us/s)		-1.76174679873E+00		Resid rate (us/s)		2.43099E-08	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-1.59342984537E-05		Resid phase (deg)		-27.1	+/- 10.4

	RMS	Theor.	Amplitude	0.194 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	37.9	24.9	Search (2048X32)	0.192	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	36.9	43.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	43.7	14.7	Inc. seg. avg.	0.217	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	57.8	25.6	Inc. frq. avg.	0.248	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

X: az 247.5 el 37.0 pa 32.1 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 10708.696 1462.512 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Xo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Xo.W.202.190PQ9

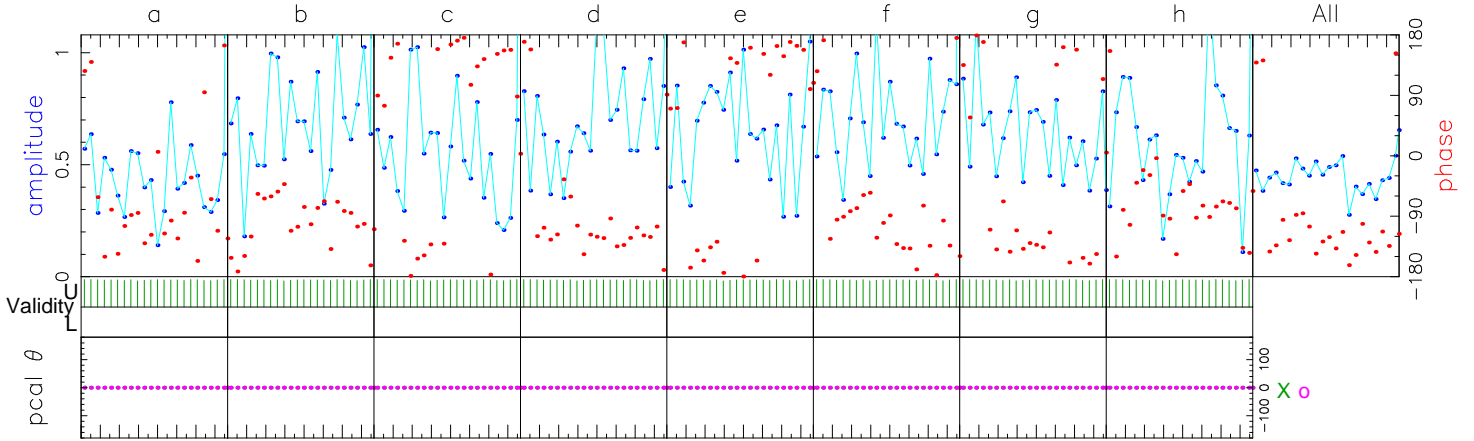


Fringe quality 7

SNR 20.4
Int time 431.745
Amp 0.360
Phase -132.9
PFD 0.0e+00
Delays (us)
SBD -0.016283
MBD 0.005666
Fringe rate (Hz) 0.002069
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c201c
Exper # 16383
Yr:day 2020:117
Start 211500.00
Stop 212219.80
FRT 211840.00
Corr/FF/build
2020:202:070201
2020:202:210835
2020:014:135814
RA & Dec (J2000)
08h54m48.874928s
+20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

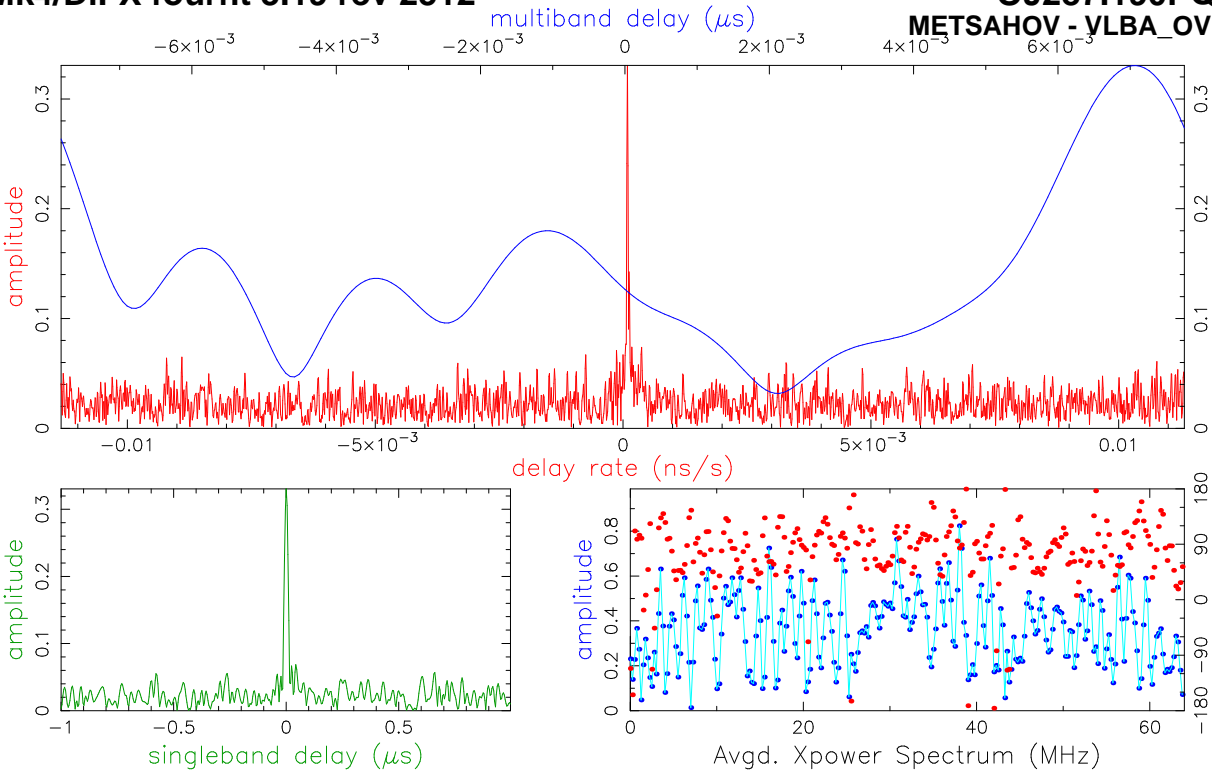


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-118.4	-94.2	162.9	-123.5	166.0	-121.3	-160.7	-80.6	Phase	-132.9
	0.2	0.6	0.4	0.6	0.5	0.5	0.4	0.5	Ampl.	0.5
	253.3	253.2	252.5	253.4	253.5	253.1	253.3	253.9	Sbd box	252.8
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	4.74405029462E+03		Apriori delay (usec)		4.74406025313E+03		Resid mbdelay (usec)		5.66649E-03	+/- 5.3E-05
Sband delay (usec)	4.74404397038E+03		Apriori clock (usec)		2.0692404E+01		Resid sbdelay (usec)		-1.62828E-02	+/- 4.2E-04
Phase delay (usec)	4.74406024884E+03		Apriori clockrate (us/s)		3.2700001E-07		Resid phdelay (usec)		-4.28665E-06	+/- 1.8E-07
Delay rate (us/s)	-1.76174677471E+00		Apriori rate (us/s)		-1.76174679873E+00		Resid rate (us/s)		2.40215E-08	+/- 7.1E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.59342984537E-05		Resid phase (deg)		-132.9	+/- 5.6

ph/seg (deg) 37.5 13.4 Search (2048X32) 0.352 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 29.5 23.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 47.1 7.9 Inc. seg. avg. 0.433 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 41.2 13.8 Inc. frq. avg. 0.462 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 X: az 247.5 el 37.0 pa 32.1 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 10708.696 1462.512 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Xo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Xo.W.219.190PQ9

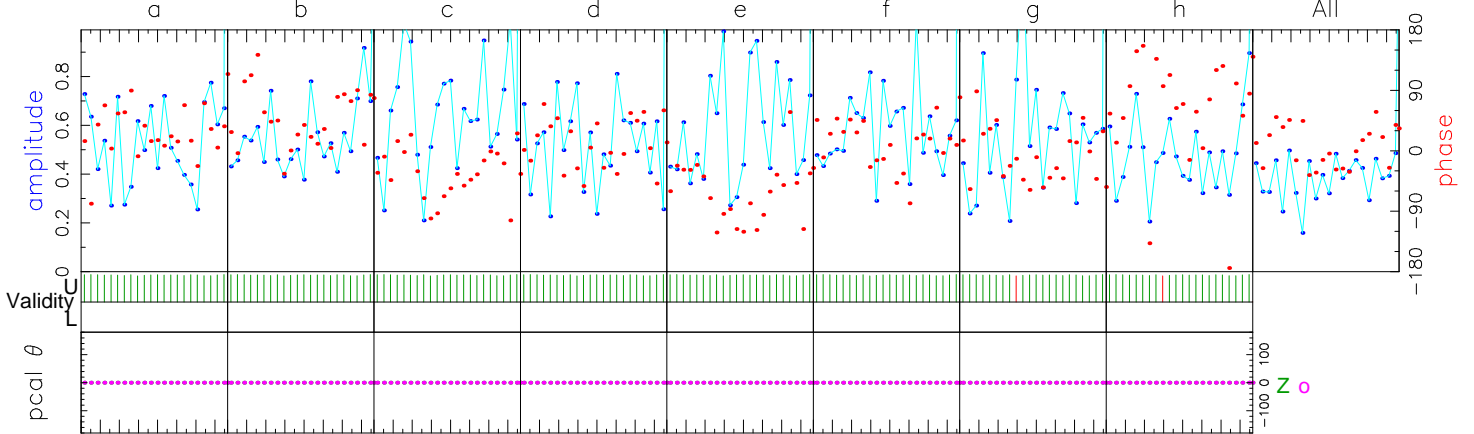
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, Zo
 METSAHOV - VLBA_OV, fgroup W, pol LL



Fringe quality 8
 SNR 18.8
 Int time 430.948
 Amp 0.331
 Phase 5.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.000209
 MBD 0.007066
 Fringe rate (Hz) 0.007522
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build
 2020:202:070201
 2020:202:210831
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

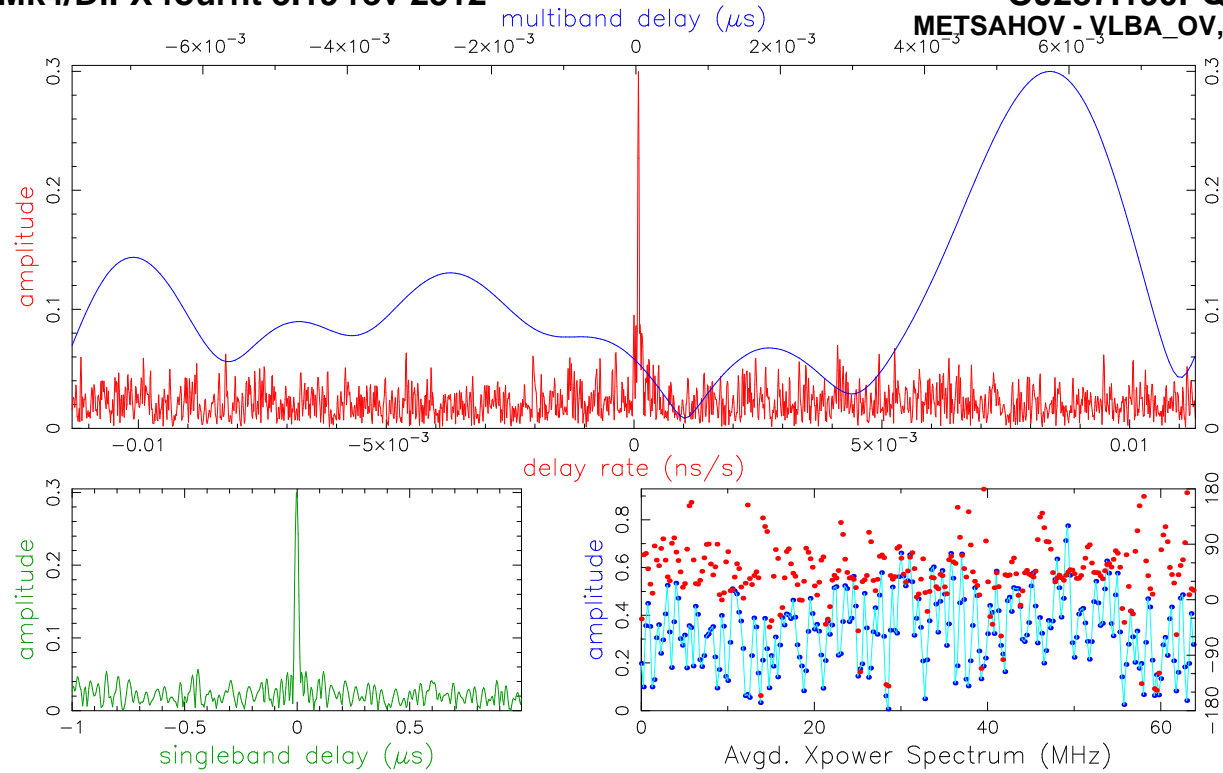


86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
26.7	47.5	-32.4	9.0	-66.3	11.3	-9.1	89.7	Phase	5.6	
0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.3	Ampl.	0.4	
257.3	257.2	257.0	257.4	257.6	257.6	258.4	259.1	Sbd box	257.1	
U/L 859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used		
Z 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
o 1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
Z:o 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Z:o 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
Z 1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
o 1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	2.52538231263E+03	Apriori delay (usec)		2.52537524620E+03	Resid mbdelay (usec)		7.06643E-03	+/-	5.8E-05	
Sband delay (usec)	2.52537545545E+03	Apriori clock (usec)		-2.0214172E+01	Resid sbdelay (usec)		2.09250E-04	+/-	4.6E-04	
Phase delay (usec)	2.52537524638E+03	Apriori clockrate (us/s)		-1.8500001E-07	Resid phdelay (usec)		1.81616E-07	+/-	2.0E-07	
Delay rate (us/s)	-1.79351504980E+00	Apriori rate (us/s)		-1.79351513713E+00	Resid rate (us/s)		8.73248E-08	+/-	7.8E-10	
Total phase (deg)	260.3		Apriori accel (us/s/s)		-3.36484547233E-06	Resid phase (deg)		5.6	+/-	6.1

ph/seg (deg) 30.4 14.6 Search (2048X32) 0.323 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 31.5 25.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 51.8 8.6 Inc. seg. avg. 0.372 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 36.0 15.1 Inc. frq. avg. 0.434 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 257.7 el 30.0 pa 31.1 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 10922.868 2034.497 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Zo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Zo.W.201.190PQ9

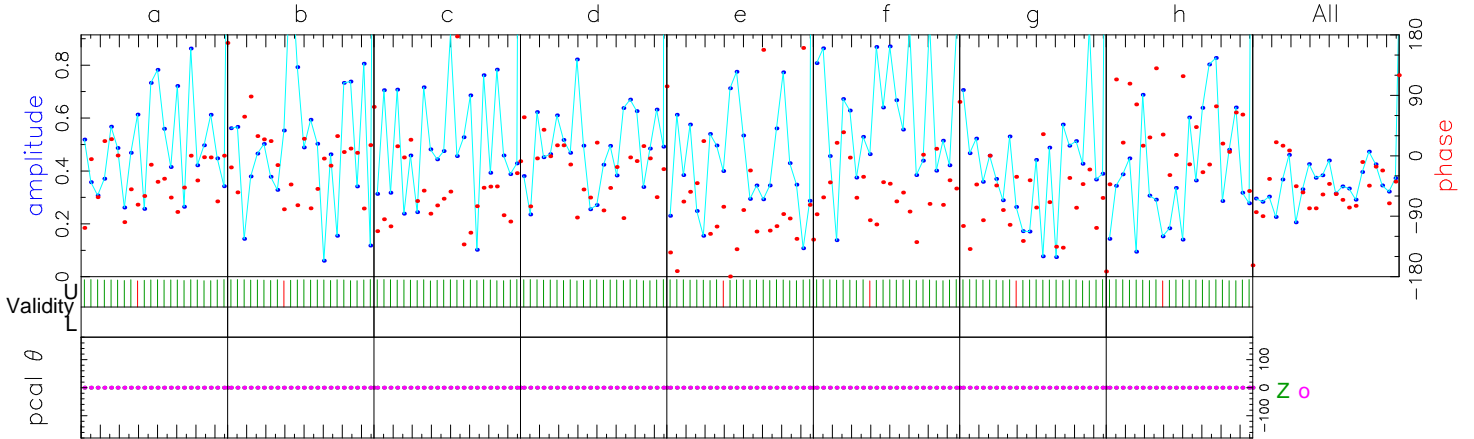
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, Zo
 METSAHOV - VLBA_OV, fgroup W, pol RR



Fringe quality 8
 SNR 17.3
 Int time 430.945
 Amp 0.305
 Phase -45.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.002198
 MBD 0.005780
 Fringe rate (Hz) 0.007601
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build
 2020:202:070201
 2020:202:210835
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec

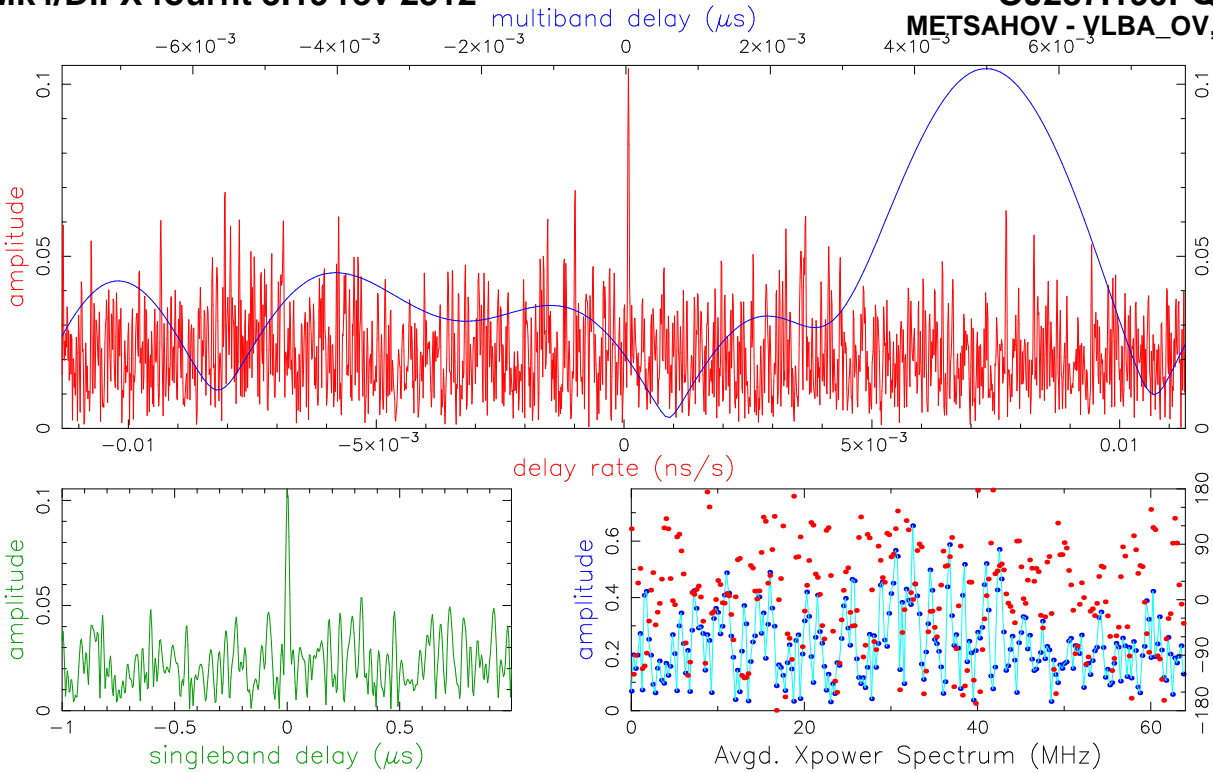


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-33.2	-22.6	-66.5	-22.0	-107.7	-54.3	-70.2	27.7	Phase	-45.1
	0.4	0.4	0.4	0.4	0.3	0.5	0.3	0.3	Ampl.	0.4
	257.2	256.7	256.5	256.4	257.0	256.8	257.7	258.1	Sbd box	256.4
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
o	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	2.52536540157E+03		Apriori delay (usec)		2.52537524620E+03		Resid mbdelay (usec)		5.78037E-03	+/- 6.3E-05
Sband delay (usec)	2.52537304795E+03		Apriori clock (usec)		-2.0214172E+01		Resid sbdelay (usec)		-2.19825E-03	+/- 5.0E-04
Phase delay (usec)	2.52537524474E+03		Apriori clockrate (us/s)		-1.8500001E-07		Resid phdelay (usec)		-1.45399E-06	+/- 2.1E-07
Delay rate (us/s)	-1.79351504889E+00		Apriori rate (us/s)		-1.79351513713E+00		Resid rate (us/s)		8.82360E-08	+/- 8.4E-10
Total phase (deg)	209.6		Apriori accel (us/s/s)		-3.36484547233E-06		Resid phase (deg)		-45.1	+/- 6.6

ph/seg (deg) 32.3 15.9 Search (2048X32) 0.297 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 27.7 27.7 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 9.4 Inc. seg. avg. 0.338 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 27.8 16.3 Inc. frq. avg. 0.355 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 257.7 el 30.0 pa 31.1 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 10922.868 2034.497 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Zo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Zo.W.218.190PQ9

Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, Zo
 METSAHOV - VLBA_OV, fgroup W, pol LR

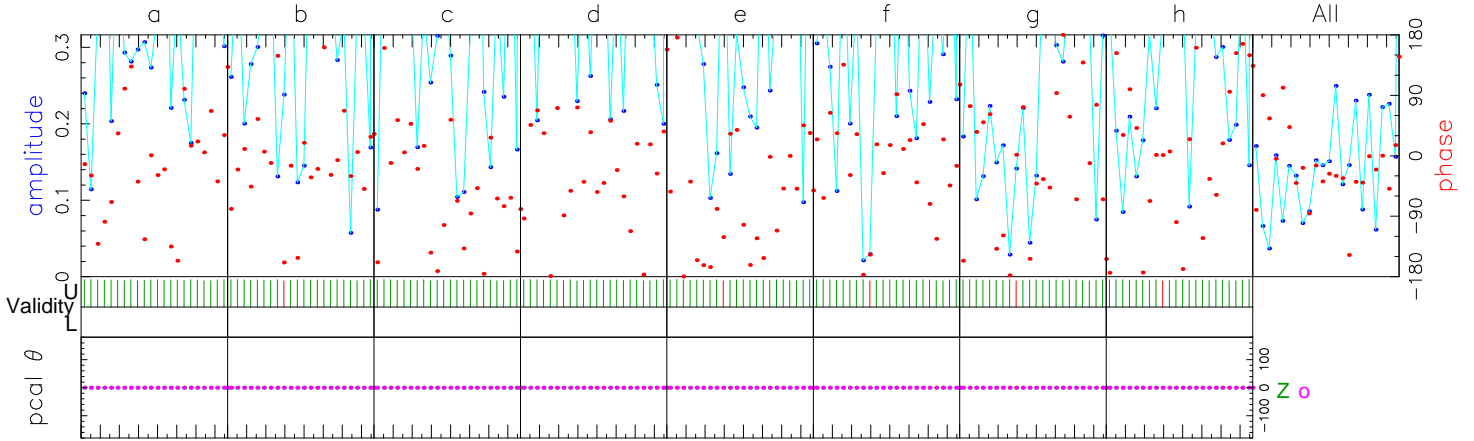


Fringe quality 0

SNR 6.0
 Int time 430.945
 Amp 0.105
 Phase -23.3
 PFD 4.2e-01
 Delays (us)
 SBD 0.001271
 MBD 0.004994
 Fringe rate (Hz)
 0.007216
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build
 2020:202:070201
 2020:202:210838
 2020:014:135814
 RA & Dec (J2000)
 08h54m48.874928s
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 sec / seg.), time ticks 30 sec



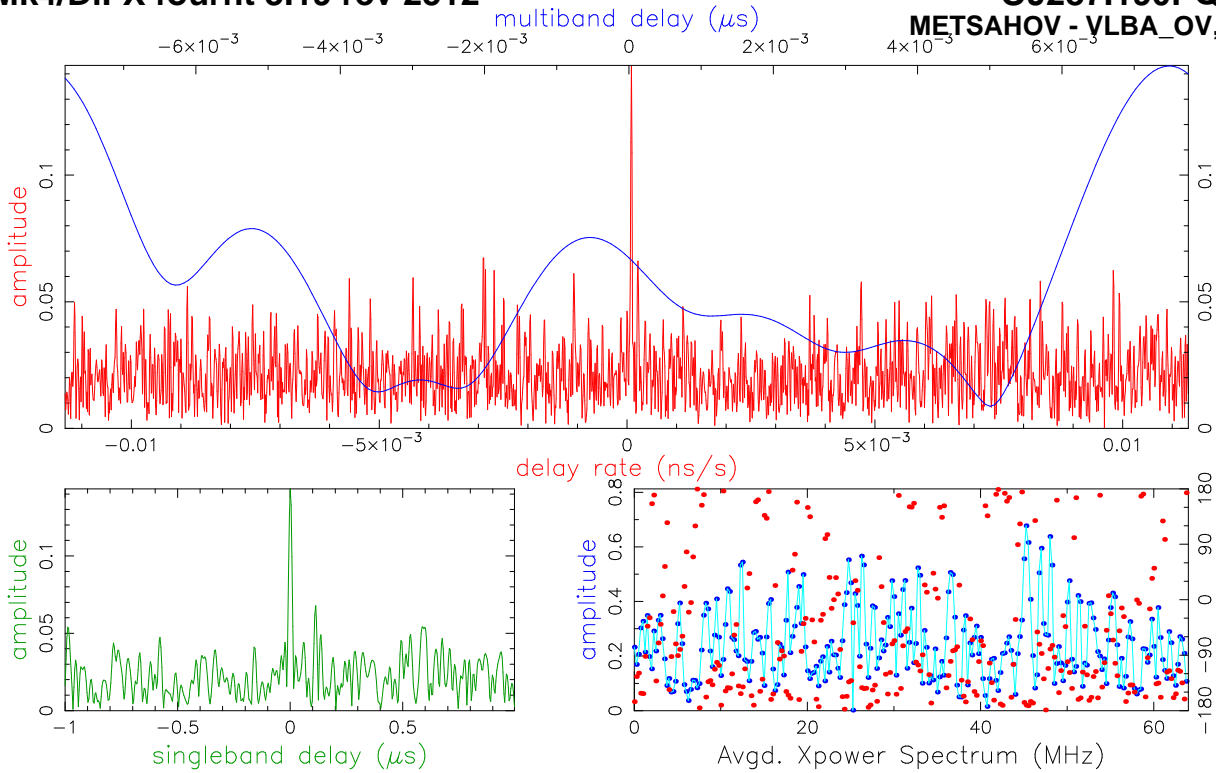
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-15.8	-12.0	-50.5	-20.9	-84.7	4.3	21.5	-140.1		Phase
	0.1	0.2	0.1	0.2	0.1	0.2	0.0	0.0		Ampl.
	9.4	256.6	47.2	110.5	85.4	257.3	416.5	262.8		Sbd box
U/L	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		APs used
Z	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
o	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
Z	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids
o	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	2.52538023975E+03		Apriori delay (usec)		2.52537524620E+03		Resid mbdelay (usec)		4.99356E-03	+/- 1.8E-04
Sband delay (usec)	2.52537651670E+03		Apriori clock (usec)		-2.0214172E+01		Resid sbdelay (usec)		1.27050E-03	+/- 1.4E-03
Phase delay (usec)	2.52537524545E+03		Apriori clockrate (us/s)		-1.8500001E-07		Resid phdelay (usec)		-7.52015E-07	+/- 6.2E-07
Delay rate (us/s)	-1.79351505335E+00		Apriori rate (us/s)		-1.79351513713E+00		Resid rate (us/s)		8.37763E-08	+/- 2.4E-09
Total phase (deg)	231.4		Apriori accel (us/s/s)		-3.36484547233E-06		Resid phase (deg)		-23.3	+/- 19.1

ph/seg (deg) 55.3 45.9 Search (2048X32) 0.100 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 70.8 80.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 59.3 27.1 Inc. seg. avg. 0.108 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 55.9 47.2 Inc. frq. avg. 0.111 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 Z: az 257.7 el 30.0 pa 31.1 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 10922.868 2034.497 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Zo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Zo.W.231.190PQ9

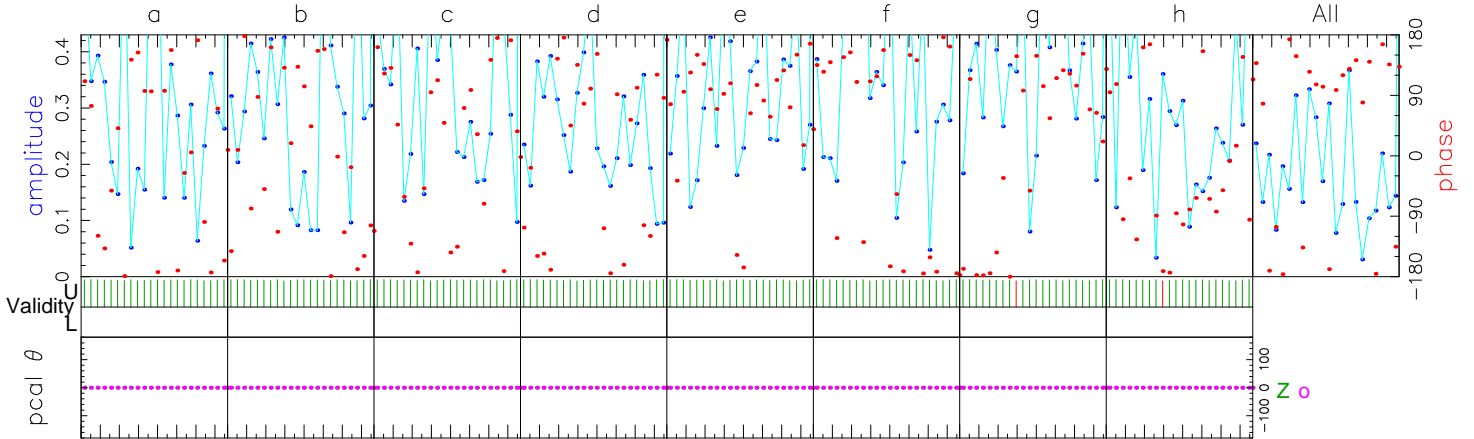
Mk4/DiFX fourfit 3.19 rev 2512

OJ287.190PQ9, No0034, Zo
 METSAHOV - VLBA_OV, fgroup W, pol RL



Fringe quality 9
 SNR 8.1
 Int time 430.948
 Amp 0.143
 Phase 149.8
 PFD 1.4e-07
 Delays (us)
 SBD 0.000532
 MBD 0.007516
 Fringe rate (Hz) 0.007620
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c201c
 Exper # 16383
 Yr:day 2020:117
 Start 211500.00
 Stop 212219.80
 FRT 211840.00
 Corr/FF/build 2020:202:070201
 2020:202:210842
 2020:014:135814
 RA & Dec (J2000) 08h54m48.874928s +20°06'30.640850"

Amp. and Phase vs. time for each freq., 23 segs, 39 APs / seg (19.97 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	859/0	859/0	859/0	859/0	859/0	859/0	859/0	859/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:o	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
o	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
o	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 2.52538276210E+03 Apriori delay (usec) 2.52537524620E+03 Resid mbdelay (usec) 7.51590E-03 +/- 1.3E-04
 Sband delay (usec) 2.52537577795E+03 Apriori clock (usec) -2.0214172E+01 Resid sbdelay (usec) 5.31750E-04 +/- 1.1E-03
 Phase delay (usec) 2.52537525103E+03 Apriori clockrate (us/s) -1.8500001E-07 Resid phdelay (usec) 4.82906E-06 +/- 4.5E-07
 Delay rate (us/s) -1.79351504867E+00 Apriori rate (us/s) -1.79351513713E+00 Resid rate (us/s) 8.84549E-08 +/- 1.8E-09
 Total phase (deg) 44.4 Apriori accel (us/s/s) -3.36484547233E-06 Resid phase (deg) 149.8 +/- 14.1

RMS Theor. Amplitude 0.143 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 46.7 33.8 Search (2048X32) 0.142 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 69.4 58.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 50.4 19.9 Inc. seg. avg. 0.156 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 52.9 34.8 Inc. frq. avg. 0.167 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 257.7 el 30.0 pa 31.1 o: az 80.2 el 20.9 pa -56.7 u,v (fr/asec) 10922.868 2034.497 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c201c/v1/1234/No0034/Zo..190PQ9 Output file: /Exps/c201c/v1/1234/No0034/Zo.W.238.190PQ9