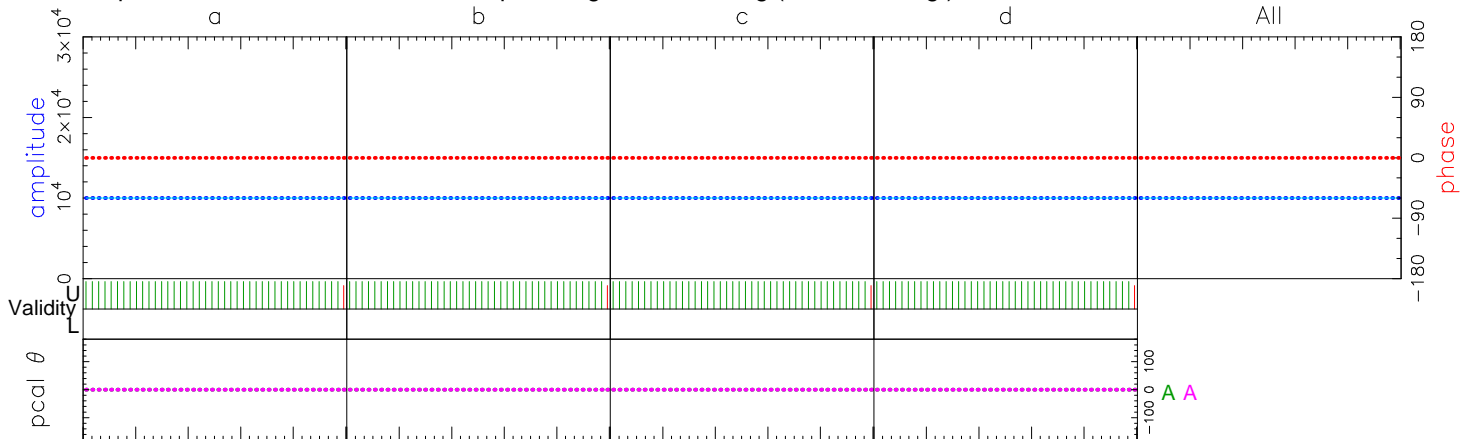


Fringe quality 9

SNR 318828.9  
 Int time 299.987  
 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. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070658  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0		
A	0	0	0	0		
A:A	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000		
A	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX		
A	W00UX	W01UX	W02UX	W03UX		

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	7.6E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	3.0E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	1.2E-11
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	6.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

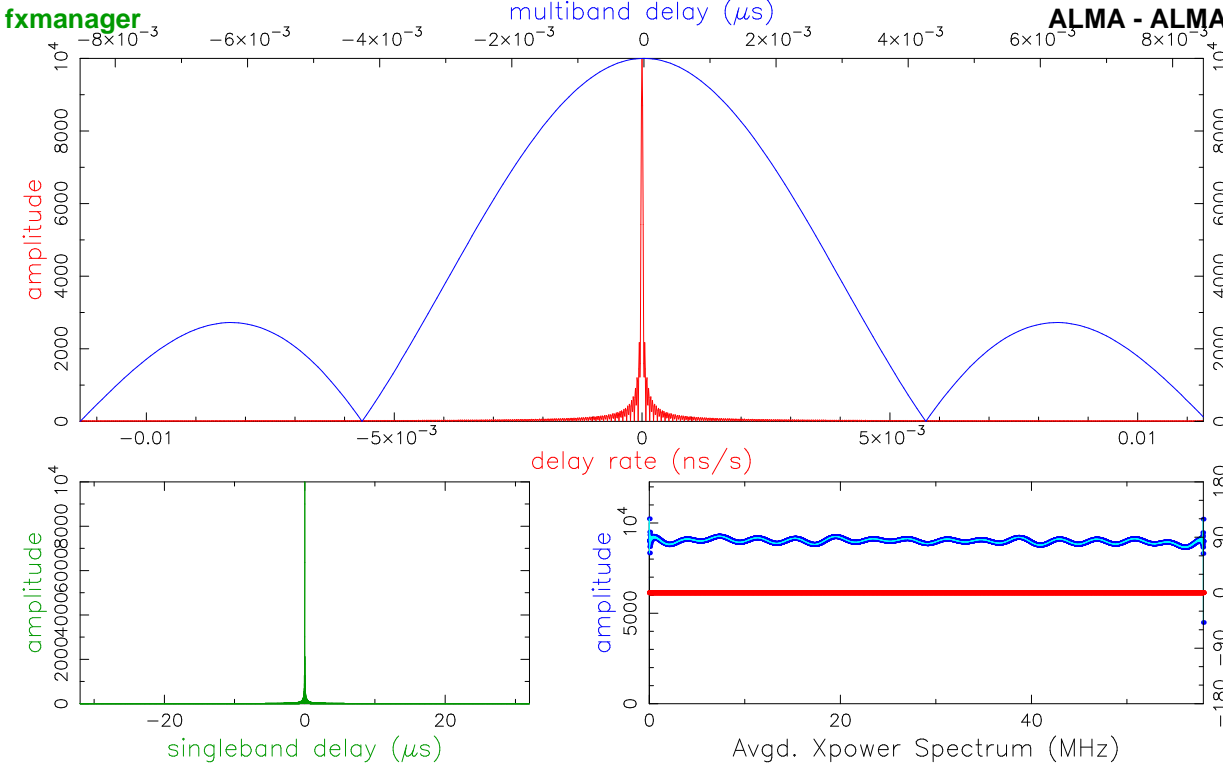
ph/seg (deg)	0.0	RMS	Theor.	0.0	Amplitude	10000.000 +/- 0.031	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	0.0	0.0	0.0	0.0	Search (2048X16)	10000.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000 32.000
ph/frq (deg)	0.0	0.0	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	mb window (us)	-0.009 0.009
amp/frq (%)	0.0	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 116	dr window (ns/s)	-0.011 0.011
					Inc. frq. avg.	10000.000	Data rate(Mb/s): 928	ion window (TEC)	0.00 0.00

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

OJ287.1RG1Q3, No0022, AA

ALMA - ALMA, fgroup W, pol YY

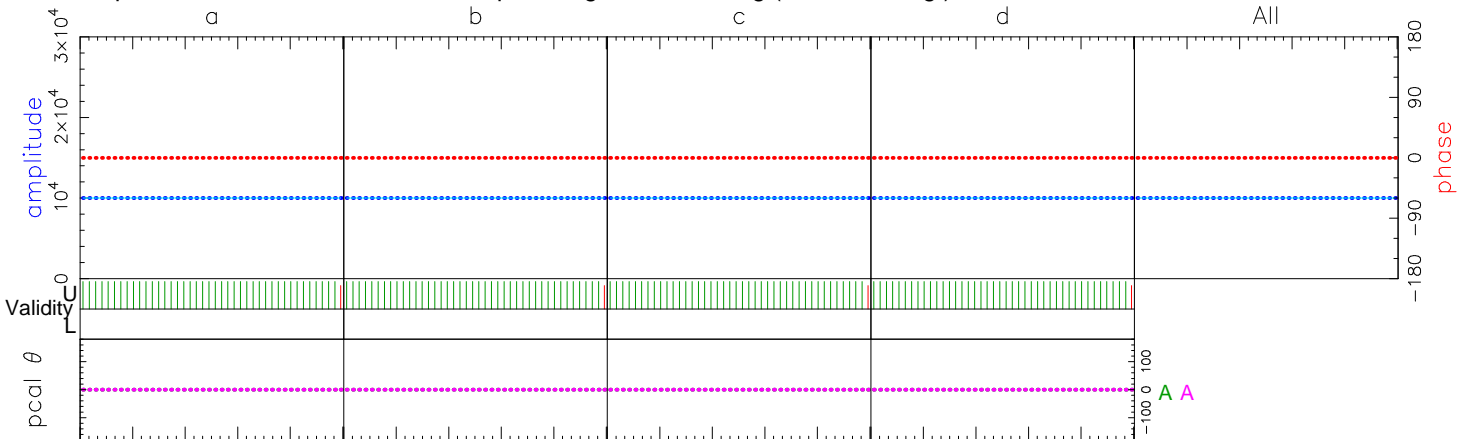


Fringe quality 9

SNR 318828.9  
 Int time 299.987  
 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. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070734  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0		
A	0	0	0	0		
A:A	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000		
A	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY		
A	W00UY	W01UY	W02UY	W03UY		
Group delay (usec)(sbd)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.00000E+00	+/- 7.6E-09
Sband delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.00000E+00	+/- 3.0E-08
Phase delay (usec)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.00000E+00	+/- 1.2E-11
Delay rate (us/s)	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.0000000000E+00	0.00000E+00	+/- 6.7E-14
Total phase (deg)		0.0			0.0	+/- 0.0
Apriori delay (usec)						
Apriori clock (usec)						
Apriori clockrate (us/s)						
Apriori rate (us/s)						
Apriori accel (us/s/s)						
RMS	0.0	0.0	0.0	0.0		
Theor.	0.0	0.0	0.0	0.0		
Amplitude	10000.000	10000.000	10000.000	10000.000		+/- 0.031
Search (2048X16)						
Interp.	0.000	0.000	0.000	0.000		
Inc. seg. avg.	10000.000	10000.000	10000.000	10000.000		
Inc. frq. avg.	10000.000	10000.000	10000.000	10000.000		
PCal mode:	MANUAL	MANUAL	MANUAL	MANUAL		PC period (AP's) 5, 5
PCal rate:	0.000E+00	0.000E+00	0.000E+00	0.000E+00		sb window (us) -32.000 32.000
Bits/sample:	2x2	2x2	2x2	2x2		mb window (us) -0.009 0.009
Sample rate(MSamp/s):	116	116	116	116		dr window (ns/s) -0.011 0.011
Data rate(Mb/s):	928	928	928	928		ion window (TEC) 0.00 0.00
nlags:	7424	t_cohere	infinite	infinite		

A: az 307.1 el 24.6 pa 128.6      A: az 307.1 el 24.6 pa 128.6      u,v (fr/asec) 0.000 0.000      simultaneous interpolator

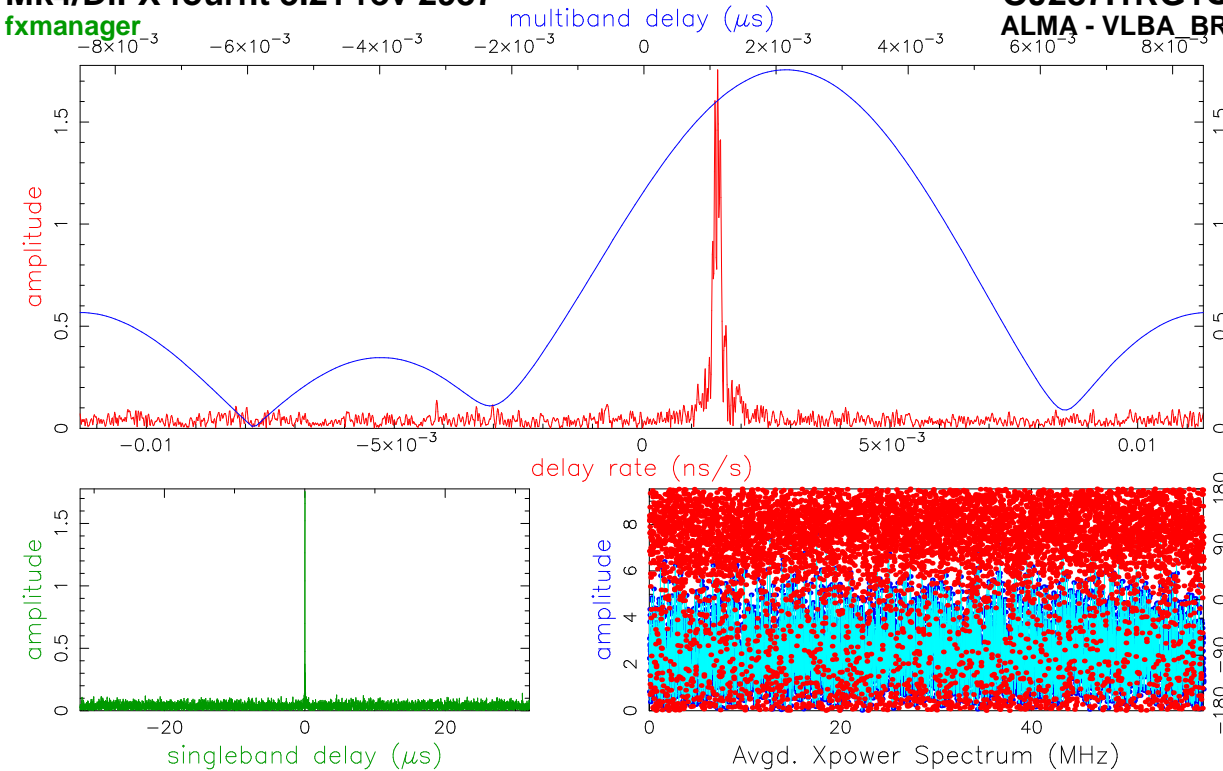
Control file: cf\_1234\_gmva    Input file: /Exps/c211d/v1/1234/No0022/AA..1RG1Q3    Output file: /Exps/c211d/v1/1234/No0022/AA.W.4.1RG1Q3

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

OJ287.1RG1Q3, No0022, Ab

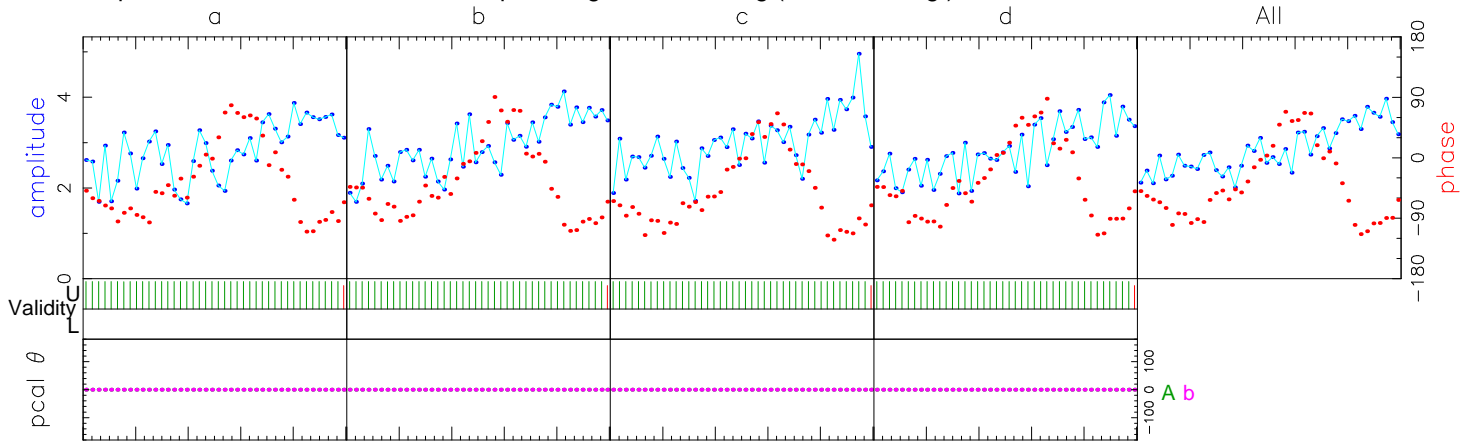
ALMA - VLBA BR, fgroup W, pol YL



Fringe quality 7

SNR 56.2  
 Int time 299.937  
 Amp 1.777  
 Phase -116.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.020616  
 MBD 0.002134  
 Fringe rate (Hz) 0.131354  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070853  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0		
A	0	0	0	0		
b	1000	1000	1000	1000		
A:b	0:0	0:0	0:0	0:0		
A:b	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000		
b	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY		
b	W01UL	W02UL	W03UL	W04UL		
Group delay (usec)(sbd)	-1.21548438964E+04					
Sband delay (usec)	-1.21548424807E+04					
Phase delay (usec)	-1.21548630985E+04					
Delay rate (us/s)	-1.05926292682E+00					
Total phase (deg)		-177.9				
Apriori delay (usec)			-1.21548630969E+04		2.13383E-03	+/- 4.3E-05
Apriori clock (usec)			-2.1046179E+03		2.06163E-02	+/- 1.7E-04
Apriori clockrate (us/s)			-1.1300001E-06		-1.56662E-06	+/- 6.6E-08
Apriori rate (us/s)			-1.05926445171E+00		1.52488E-06	+/- 3.8E-10
Apriori accel (us/s/s)			9.65177276409E-06		-116.8	+/- 2.0
Resid mbdelay (usec)						
Resid sbdelay (usec)						
Resid phdelay (usec)						
Resid rate (us/s)						
Resid phase (deg)						
Pcal mode: MANUAL, MANUAL						
Pcal rate: 0.000E+00, 0.000E+00 (us/s)						
Bits/sample: 2x2						
Sample rate(MISamp/s): 116						
Data rate(Mb/s): 928						
PC period (AP's) 5, 5						
sb window (us)					-32.000	32.000
mb window (us)					-0.009	0.009
dr window (ns/s)					-0.011	0.011
ion window (TEC)					0.00	0.00

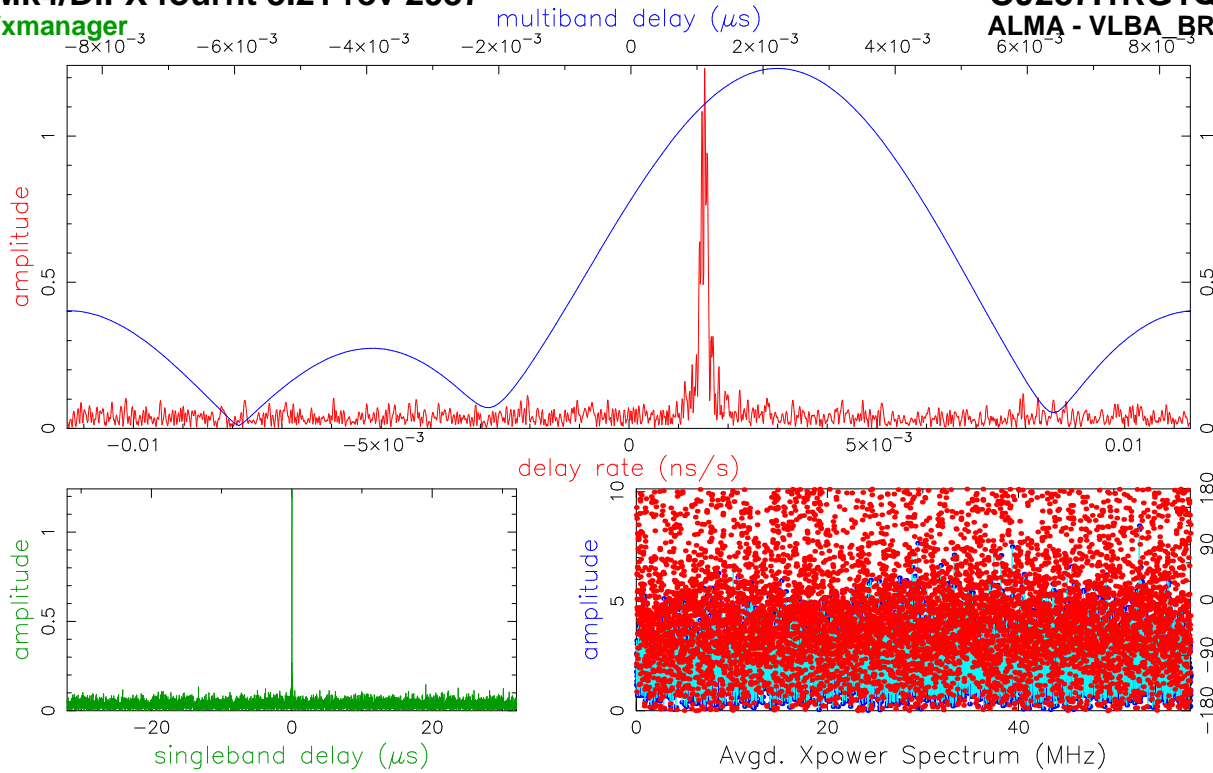
ph/seg (deg) 54.8 6.6 Search (2048X16) 1.719 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 68.3 11.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000  
 ph/frq (deg) 9.8 2.0 Inc. seg. avg. 2.860 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.009 0.009  
 amp/frq (%) 3.4 3.6 Inc. frq. avg. 1.781 Sample rate(MISamp/s): 116 Data rate(Mb/s): 928 nlags: 7424 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 A: az 307.1 el 24.6 pa 128.6 b: az 177.2 el 61.9 pa -2.3 u,v (fr/asec) 6480.388 -9172.674 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211d/v1/1234/No0022/Ab..1RG1Q3 Output file: /Exps/c211d/v1/1234/No0022/Ab.W.10.1RG1Q3

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

OJ287.1RG1Q3, No0022, Ab

ALMA - VLBA BR, fgroup W, pol XL

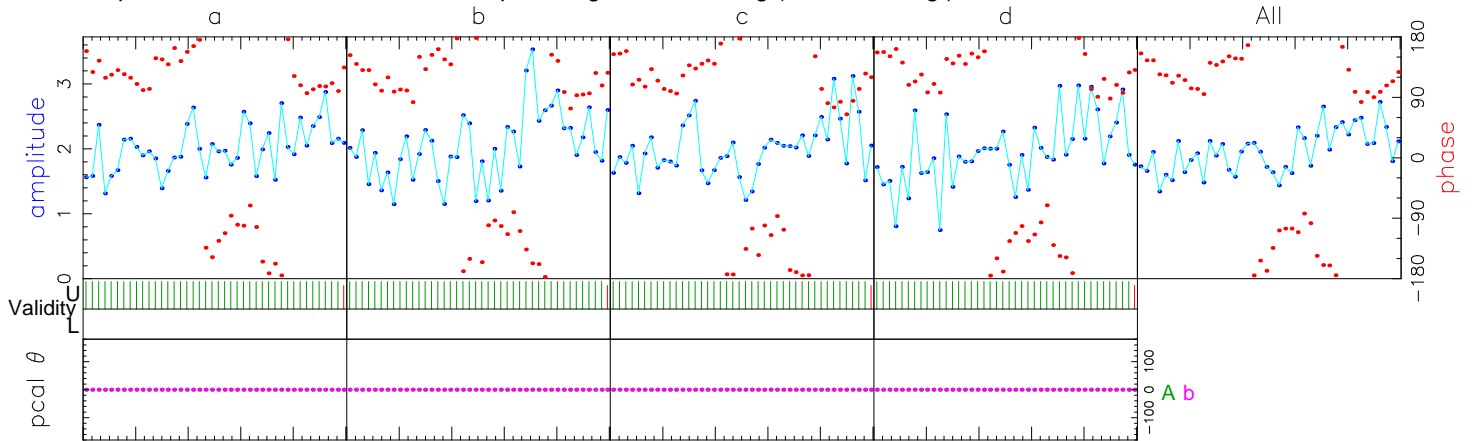


Fringe quality 7

SNR 39.3  
 Int time 299.937  
 Amp 1.242  
 Phase 82.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.021152  
 MBD 0.002209  
 Fringe rate (Hz)  
 0.131367  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070659  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	152.7	152.7	140.9	157.2	Phase	150.9
	1.2	1.3	1.3	1.2	Ampl.	1.2
	7429.9	7429.9	7429.8	7430.1	Sbd box	7429.9
U/L	586/0	586/0	586/0	586/0	APs used	
A	0	0	0	0	PC freqs	
b	1000	1000	1000	1000	PC freqs	
A:b	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	Chan ids	
b	W01UL	W02UL	W03UL	W04UL	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.21548438215E+04	Apriori delay (usec)	-1.21548630969E+04	Resid mbdelay (usec)	2.20872E-03	+/-	6.2E-05
Sband delay (usec)	-1.21548419452E+04	Apriori clock (usec)	-2.1046179E+03	Resid sbdelay (usec)	2.11517E-02	+/-	2.4E-04
Phase delay (usec)	-1.21548630921E+04	Apriori clockrate (us/s)	-1.1300001E-08	Resid phdelay (usec)	4.86474E-06	+/-	9.4E-08
Delay rate (us/s)	-1.05926292667E+00	Apriori rate (us/s)	-1.05926445171E+00	Resid rate (us/s)	1.52504E-06	+/-	5.4E-10
Total phase (deg)	21.5	Apriori accel (us/s/s)	9.65177276409E-06	Resid phase (deg)	82.6	+/-	2.9

ph/seg (deg)	RMS 54.9	Theor. 9.4	Amplitude Search (2048X16)	1.242 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5			
amp/seg (%)	65.1	16.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000	32.000	
ph/frq (deg)	8.6	2.9	Inc. seg. avg.	1.952	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.009	0.009
amp/frq (%)	1.0	5.1	Inc. frq. avg.	1.246	Sample rate(MISamp/s): 116		dr window (ns/s)	-0.011	0.011
					Data rate(Mb/s): 928	nlags: 7424 t_cohere infinite	ion window (TEC)	0.00	0.00

A: az 307.1 el 24.6 pa 128.6    b: az 177.2 el 61.9 pa -2.3    u,v (fr/asec) 6480.388 -9172.674    simultaneous interpolator

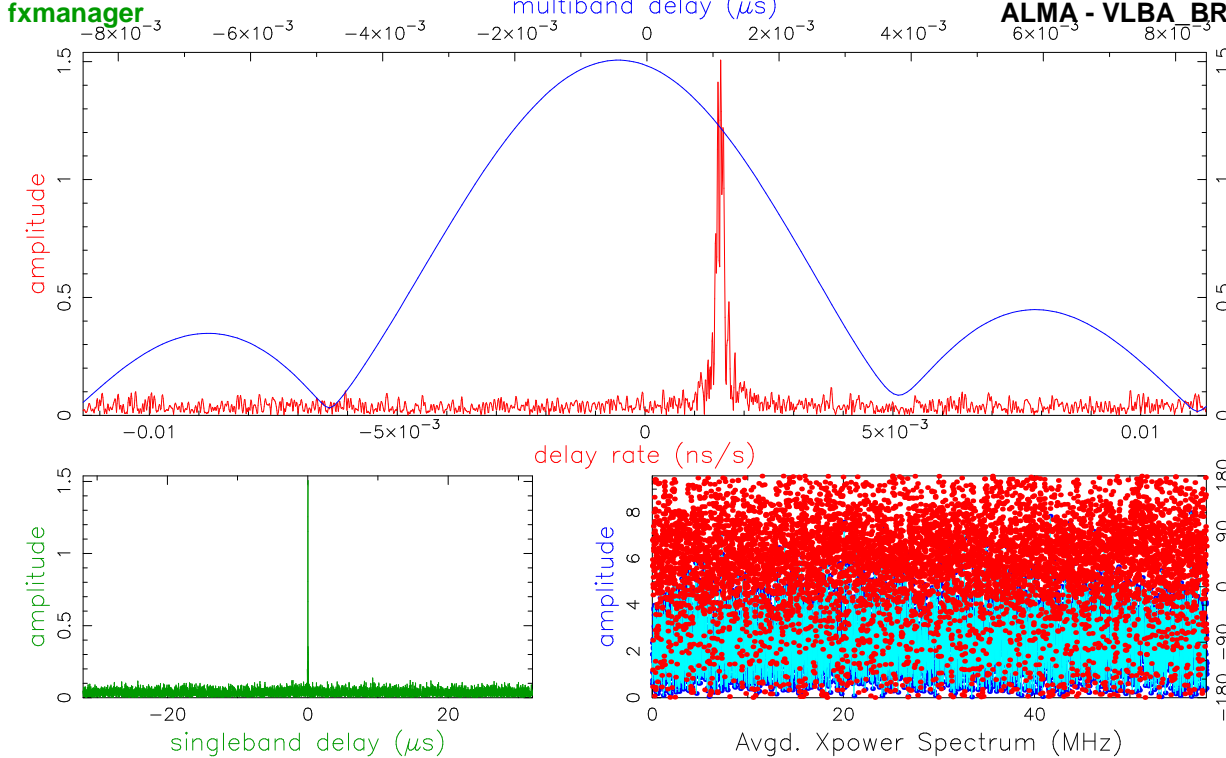
Control file: cf\_1234\_gmva    Input file: /Exps/c211d/v1/1234/No0022/Ab..1RG1Q3    Output file: /Exps/c211d/v1/1234/No0022/Ab.W.2.1RG1Q3

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

OJ287.1RG1Q3, No0022, Ab

ALMA - VLBA BR, fgroup W, pol YR

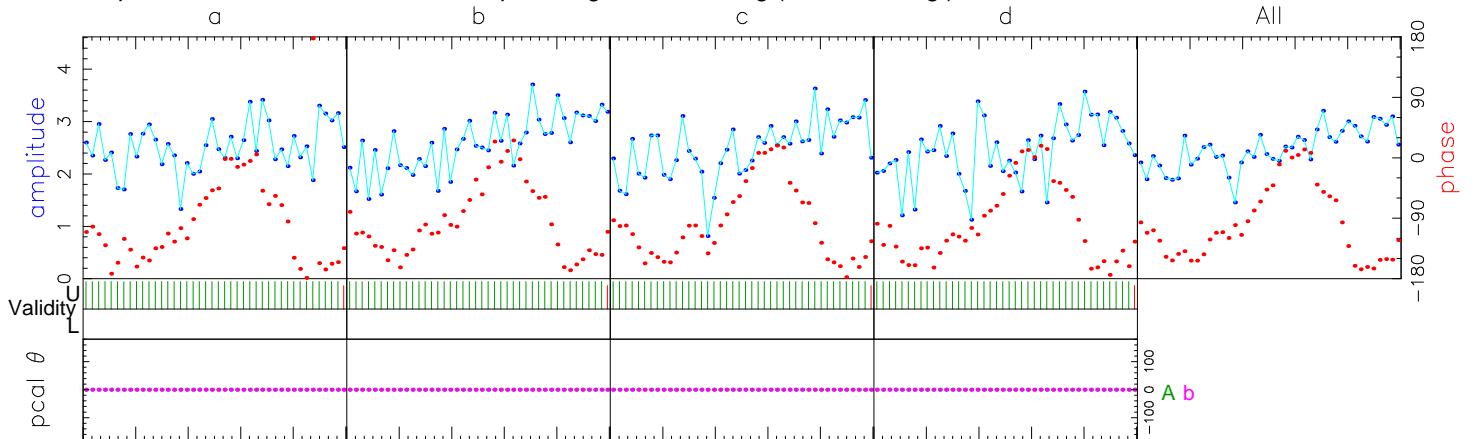


Fringe quality 7

SNR 48.7  
 Int time 299.937  
 Amp 1.539  
 Phase -173.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.018862  
 MBD -0.000424  
 Fringe rate (Hz)  
 0.131408  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070735  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-109.4	-99.1	-106.0	-107.8	Phase	-105.5
	1.5	1.6	1.5	1.5	Ampl.	1.5
	7429.5	7429.4	7429.1	7429.5	Sbd box	7429.4
U/L	586/0	586/0	586/0	586/0	APs used	
A	0	0	0	0	PC freqs	
b	1000	1000	1000	1000	PC freqs	
A:b	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	Chan ids	
b	W01UR	W02UR	W03UR	W04UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.21548464538E+04		Apriori delay (usec)	-1.21548630969E+04	Resid mbdelay (usec)	-4.23573E-04 +/- 5.0E-05
Sband delay (usec)	-1.21548442346E+04		Apriori clock (usec)	-2.1046179E+03	Resid sbdelay (usec)	1.88623E-02 +/- 2.0E-04
Phase delay (usec)	-1.21548631003E+04		Apriori clockrate (us/s)	-1.1300001E-06	Resid phdelay (usec)	-3.40087E-06 +/- 7.6E-08
Delay rate (us/s)	-1.05926292619E+00		Apriori rate (us/s)	-1.05926445171E+00	Resid rate (us/s)	1.52552E-06 +/- 4.4E-10
Total phase (deg)		-234.8	Apriori accel (us/s/s)	9.65177276409E-06	Resid phase (deg)	-173.7 +/- 2.4

	RMS	Theor.	Amplitude	1.539 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	55.3	7.6	Search (2048X16)	1.468	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -32.000 32.000
amp/seg (%)	67.2	13.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.009 0.009
ph/frq (deg)	5.6	2.4	Inc. seg. avg.	2.477	Sample rate(MISamp/s): 116	dr window (ns/s) -0.011 0.011
amp/frq (%)	3.8	4.1	Inc. frq. avg.	1.520	Data rate(Mb/s): 928	nlags: 7424 t_cohere infinite ion window (TEC) 0.00 0.00

A: az 307.1 el 24.6 pa 128.6 b: az 177.2 el 61.9 pa -2.3 u,v (fr/asec) 6480.388 -9172.674 simultaneous interpolator

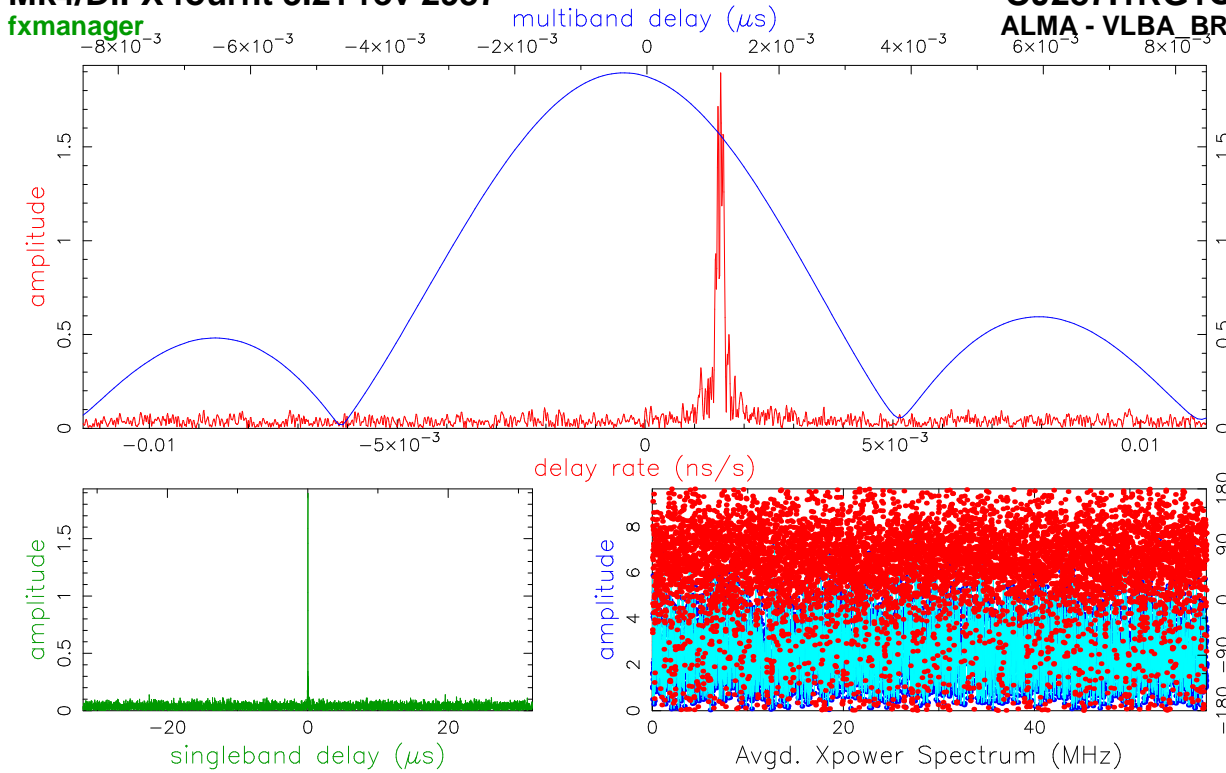
Control file: cf\_1234\_gmva Input file: /Exps/c211d/v1/1234/No0022/Ab..1RG1Q3 Output file: /Exps/c211d/v1/1234/No0022/Ab.W.5.1RG1Q3

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

OJ287.1RG1Q3, No0022, Ab

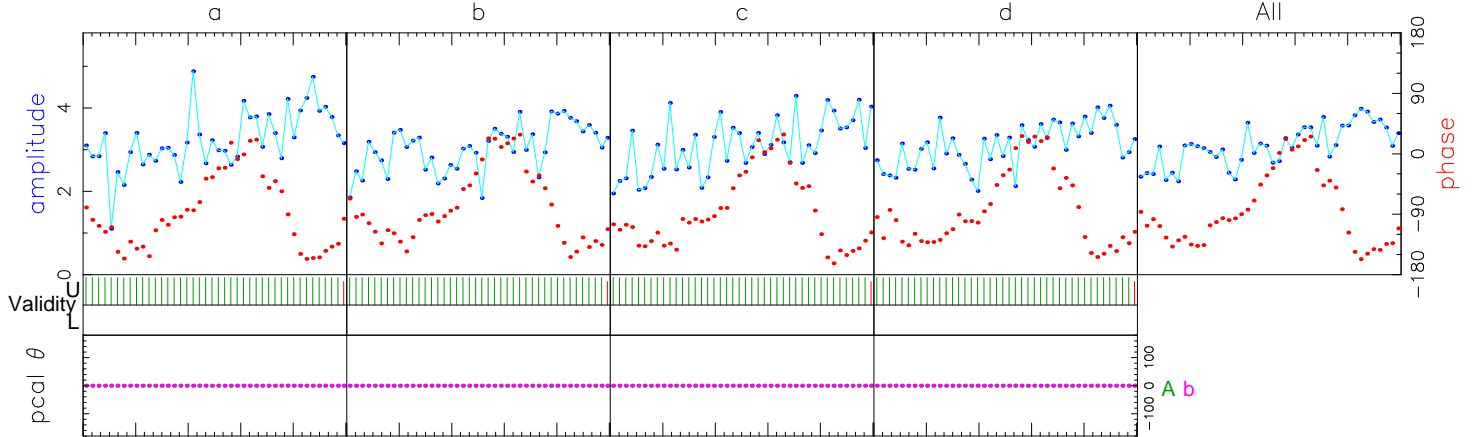
ALMA - VLBA\_BR, fgroup W, pol XR



Fringe quality 7

SNR 61.2  
 Int time 299.937  
 Amp 1.934  
 Phase -160.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.018826  
 MBD -0.000339  
 Fringe rate (Hz) 0.131357  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070813  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec

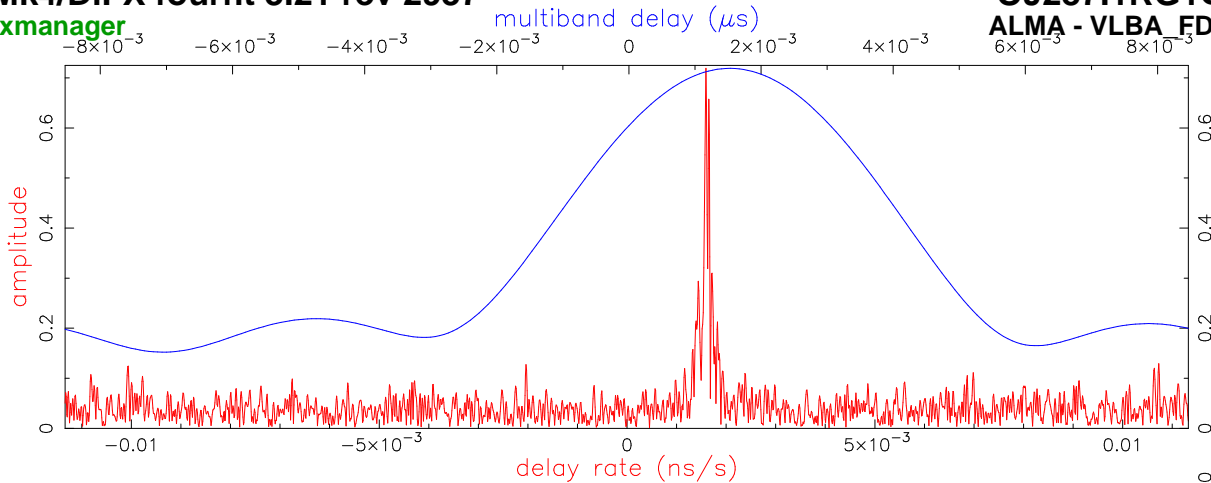


	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-94.0	-87.0	-94.3	-92.8	Phase	-92.1
	2.0	1.9	1.9	1.9	Ampl.	1.9
	7429.3	7429.5	7429.3	7429.5	Sbd box	7429.4
U/L	586/0	586/0	586/0	586/0	APs used	
A	0	0	0	0	PC freqs	
b	1000	1000	1000	1000	PC freqs	
A:b	0:0	0:0	0:0	0:0	PC phase	
A:b	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
b	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	Chan ids	
b	W01UR	W02UR	W03UR	W04UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.21548463688E+04		Apriori delay (usec)	-1.21548630969E+04	Resid mbdelay (usec)	-3.38513E-04 +/- 4.0E-05
Sband delay (usec)	-1.21548442710E+04		Apriori clock (usec)	-2.1046179E+03	Resid sbdelay (usec)	1.88259E-02 +/- 1.6E-04
Phase delay (usec)	-1.21548630999E+04		Apriori clockrate (us/s)	-1.1300001E-06	Resid phdelay (usec)	-2.96911E-06 +/- 6.0E-08
Delay rate (us/s)	-1.05926292678E+00		Apriori rate (us/s)	-1.05926445171E+00	Resid rate (us/s)	1.52492E-06 +/- 3.5E-10
Total phase (deg)		-221.4	Apriori accel (us/s/s)	9.65177276409E-06	Resid phase (deg)	-160.3 +/- 1.9

	RMS	Theor.	Amplitude	1.934 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	54.2	6.1	Search (2048X16)	1.827	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -32.000 32.000
amp/seg (%)	66.0	10.6	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.009 0.009
ph/frq (deg)	4.2	1.9	Inc. seg. avg.	3.099	Sample rate(MISamp/s): 116	dr window (ns/s) -0.011 0.011
amp/frq (%)	3.4	3.3	Inc. frq. avg.	1.910	Data rate(Mb/s): 928	ion window (TEC) 0.00 0.00

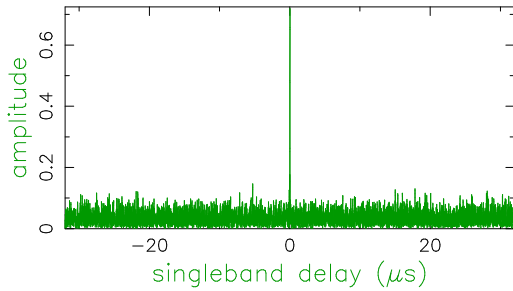
A: az 307.1 el 24.6 pa 128.6 b: az 177.2 el 61.9 pa -2.3 u,v (fr/asec) 6480.388 -9172.674 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211d/v1/1234/No0022/Ab..1RG1Q3 Output file: /Exps/c211d/v1/1234/No0022/Ab.W.7.1RG1Q3

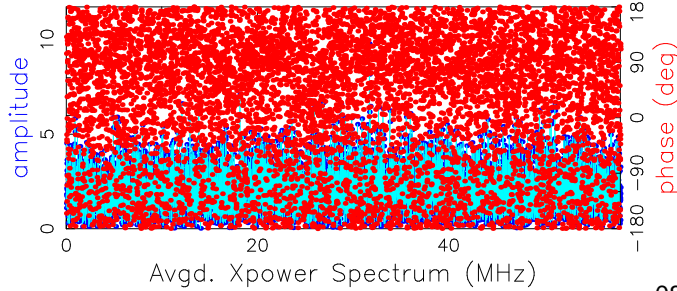


Fringe quality 7

SNR 22.9  
 Int time 299.973  
 Amp 0.725  
 Phase -118.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.021418  
 MBD 0.001528  
 Fringe rate (Hz)  
 0.137544  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

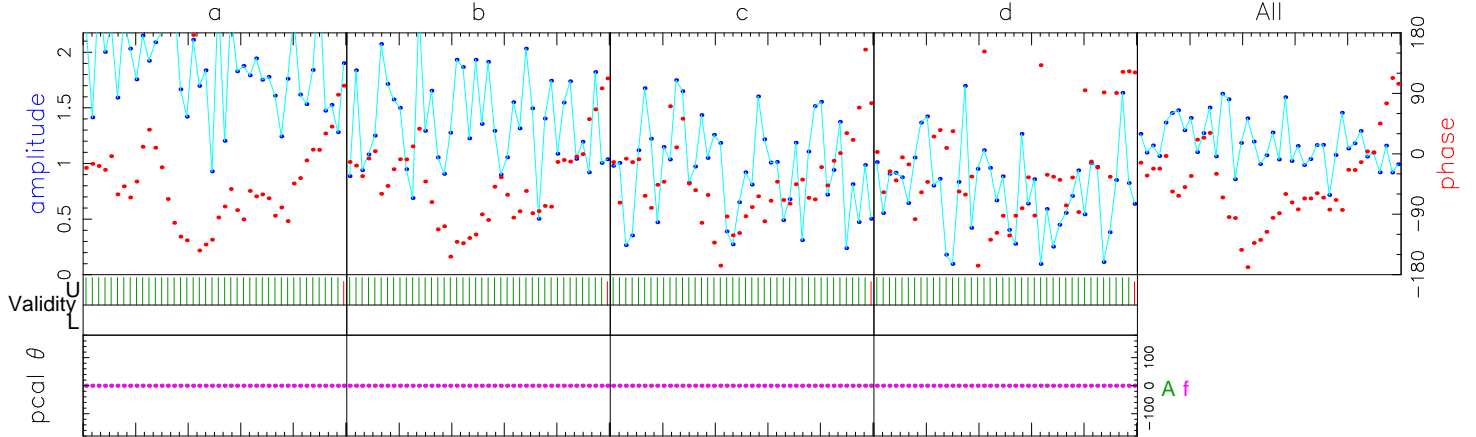


delay rate (ns/s)



Exp. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070704  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
-49.1	-51.3	-49.8	-48.8	Phase	-49.8
1.2	0.8	0.6	0.3	Ampl.	0.7
7430.0	7430.1	7429.6	7430.3	Sbd box	7430.0
U/L 586/0	586/0	586/0	586/0	APs used	
A 0	0	0	0	PC freqs	
f 1000	1000	1000	1000	PC freqs	
A:f 0:0	0:0	0:0	0:0	PC phase	
A:f 0:0	0:0	0:0	0:0	Manl PC	
A 1000	1000	1000	1000	PC amp	
f 1000	1000	1000	1000		
A W00UX	W01UX	W02UX	W03UX	Chan ids	
f W01UL	W02UL	W03UL	W04UL	Tracks	
				Chan ids	
				Tracks	

Group delay (usec)(sbd)	-1.37283893469E+04	Apriori delay (usec)	-1.37284079414E+04	Resid mbdelay (usec)	1.52781E-03	+/- 1.1E-04
Sband delay (usec)	-1.37283865229E+04	Apriori clock (usec)	-2.1178708E+03	Resid sbdelay (usec)	2.14185E-02	+/- 4.1E-04
Phase delay (usec)	-1.37284079430E+04	Apriori clockrate (us/s)	-1.3800001E-06	Resid phdelay (usec)	-1.60680E-06	+/- 1.6E-07
Delay rate (us/s)	-7.21830325946E-01	Apriori rate (us/s)	-7.21831922700E-01	Resid rate (us/s)	1.59675E-06	+/- 9.3E-10
Total phase (deg)	-144.8	Apriori accel (us/s/s)	2.70295441594E-05	Resid phase (deg)	-118.1	+/- 5.0

ph/seg (deg)	RMS 61.0	Theor. 16.2	Amplitude Search (2048X16)	0.725 +/- 0.032	0.712	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-32.000	32.000
amp/seg (%)	71.4	28.3	Interp.	0.000	0.000E+00	0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.009	0.009
ph/frq (deg)	1.4	5.0	Inc. seg. avg.	1.153	116	Sample rate(MISamp/s):	nlags: 7424 t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	41.7	8.7	Inc. frq. avg.	0.722	928	Data rate(Mb/s):		ion window (TEC)	0.00	0.00

A: az 307.1 el 24.6 pa 128.6 f: az 234.0 el 73.3 pa 48.4 u,v (fr/asec) 4435.374 -6714.016 simultaneous interpolator

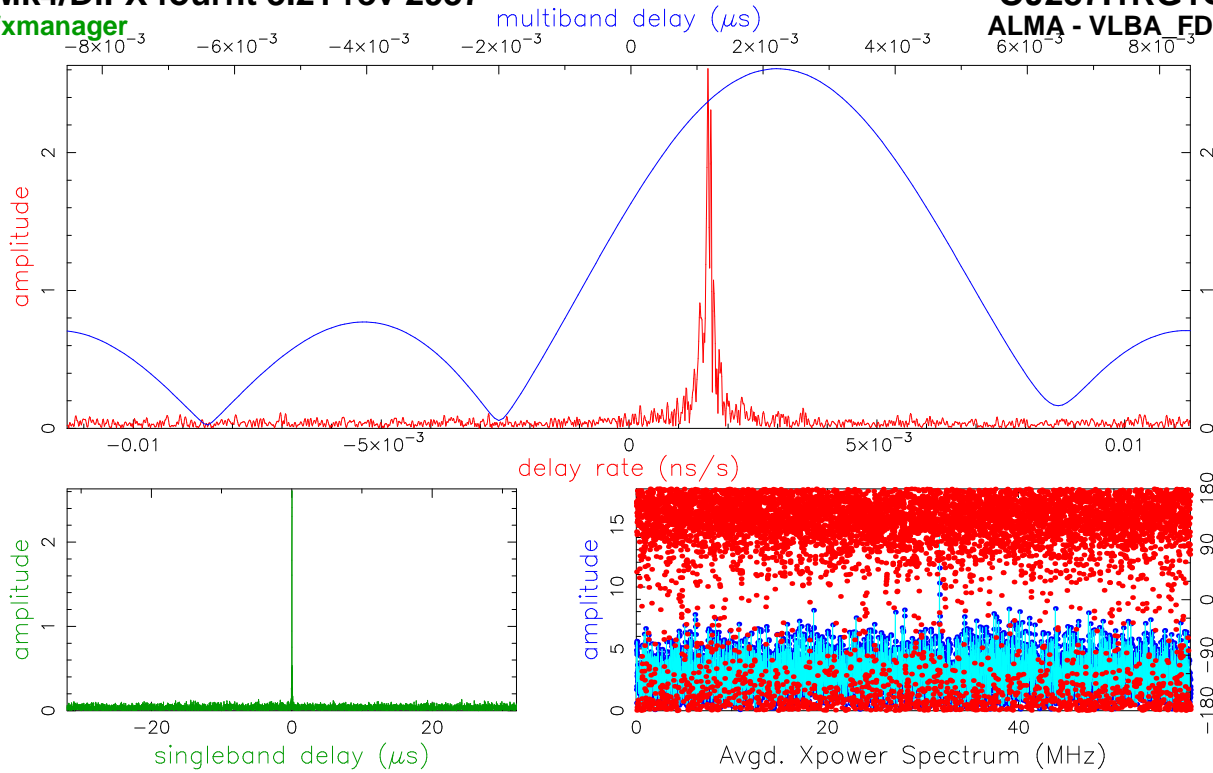
Control file: cf\_1234\_gmva Input file: /Exps/c211d/v1/1234/No0022/Af..1RG1Q3 Output file: /Exps/c211d/v1/1234/No0022/Af.W.3.1RG1Q3

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

OJ287.1RG1Q3, No0022, Af

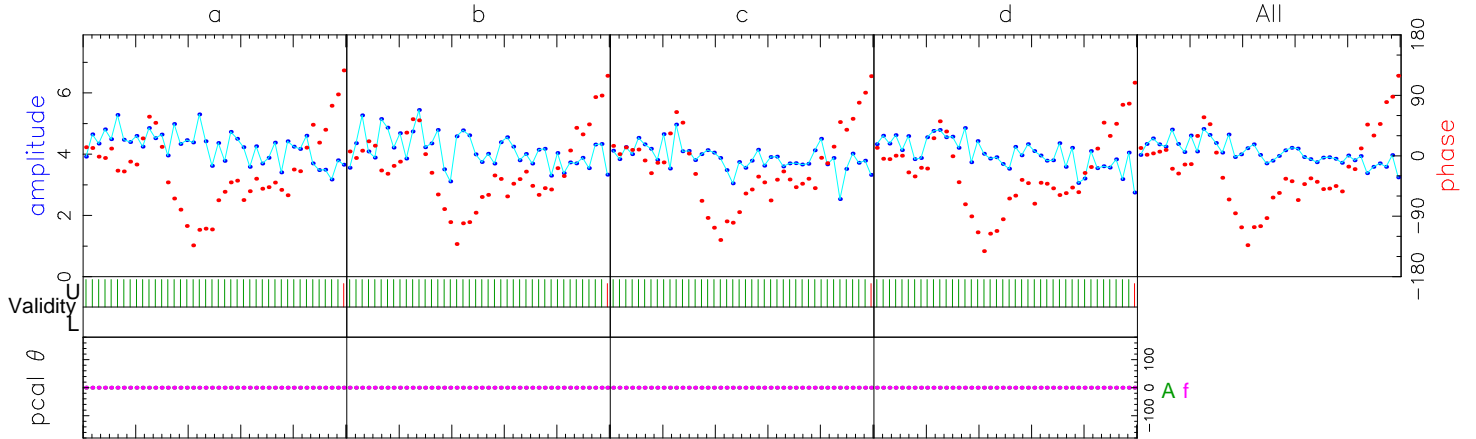
ALMA - VLBA\_FD, fgroup W, pol YR



Fringe quality 5

SNR 83.2  
 Int time 299.973  
 Amp 2.632  
 Phase -90.3  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.021087  
 MBD 0.002210  
 Fringe rate (Hz) 0.137706  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070740  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-24.9	-20.2	-16.7	-26.0	Phase	-22.0
	2.7	2.7	2.5	2.6	Ampl.	2.6
	7429.9	7429.9	7429.9	7429.9	Sbd box	7429.9
U/L	586/0	586/0	586/0	586/0	APs used	
A	0	0	0	0	PC freqs	
f	1000	1000	1000	1000	PC freqs	
A:f	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY	Chan ids	
f	W01UR	W02UR	W03UR	W04UR	Tracks	
					Chan ids	
					Tracks	

Group delay (usec)(sbd)	-1.37283886650E+04	Apriori delay (usec)	-1.37284079414E+04	Resid mbdelay (usec)	2.20973E-03	+/-	2.9E-05
Sband delay (usec)	-1.37283868540E+04	Apriori clock (usec)	-2.1178708E+03	Resid sbdelay (usec)	2.10874E-02	+/-	1.1E-04
Phase delay (usec)	-1.37284079421E+04	Apriori clockrate (us/s)	-1.3800001E-06	Resid phdelay (usec)	-7.10482E-07	+/-	4.4E-08
Delay rate (us/s)	-7.21830324070E-01	Apriori rate (us/s)	-7.21831922700E-01	Resid rate (us/s)	1.59863E-06	+/-	2.6E-10
Total phase (deg)	-117.0	Apriori accel (us/s/s)	2.70295441594E-05	Resid phase (deg)	-90.3	+/-	1.4

ph/seg (deg)	54.6	Theor.	4.5	Amplitude	2.632 +/- 0.032	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	56.9		7.8	Search (2048X16)	2.549	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000 32.000	
ph/frq (deg)	5.3		1.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.009 0.009
amp/frq (%)	3.1		2.4	Inc. seg. avg.	4.076	Sample rate(MISamp/s):	116	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	2.634	Data rate(Mb/s):	928	ion window (TEC)	0.00 0.00	

A: az 307.1 el 24.6 pa 128.6 f: az 234.0 el 73.3 pa 48.4 u,v (fr/asec) 4435.374 -6714.016 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211d/v1/1234/No0022/Af..1RG1Q3 Output file: /Exps/c211d/v1/1234/No0022/Af.W.6.1RG1Q3

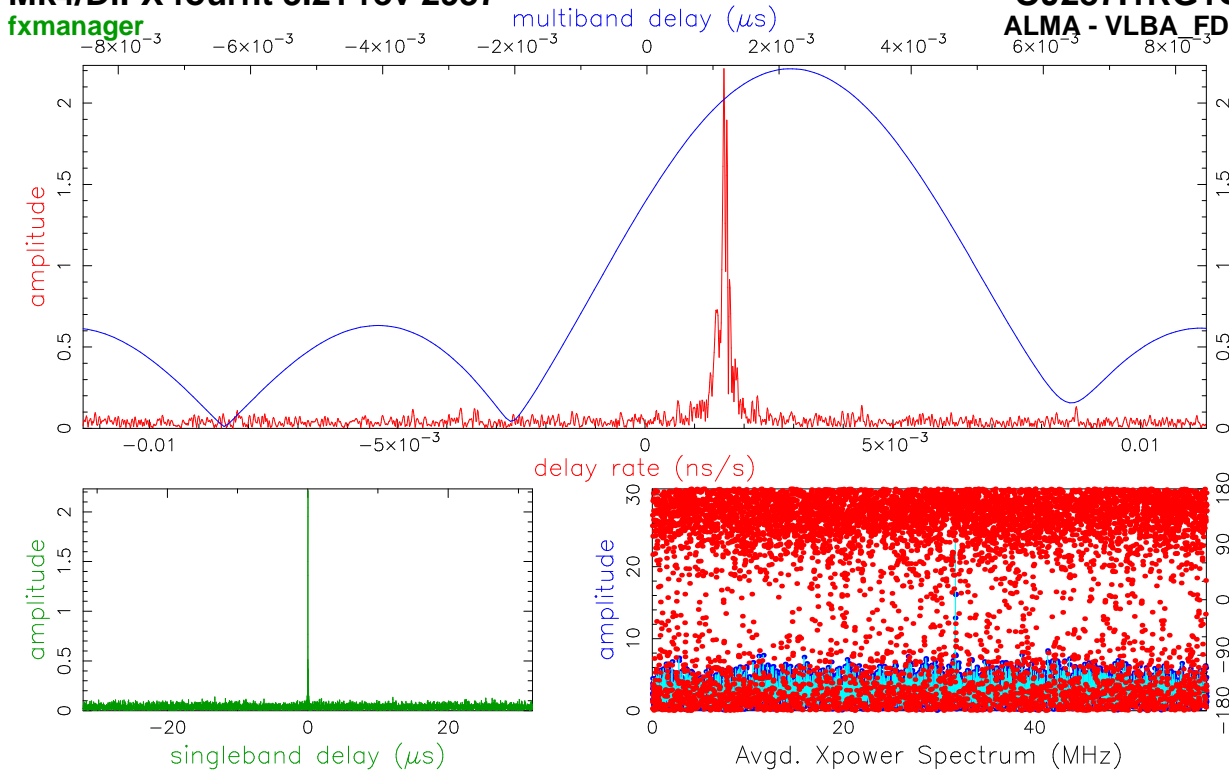


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

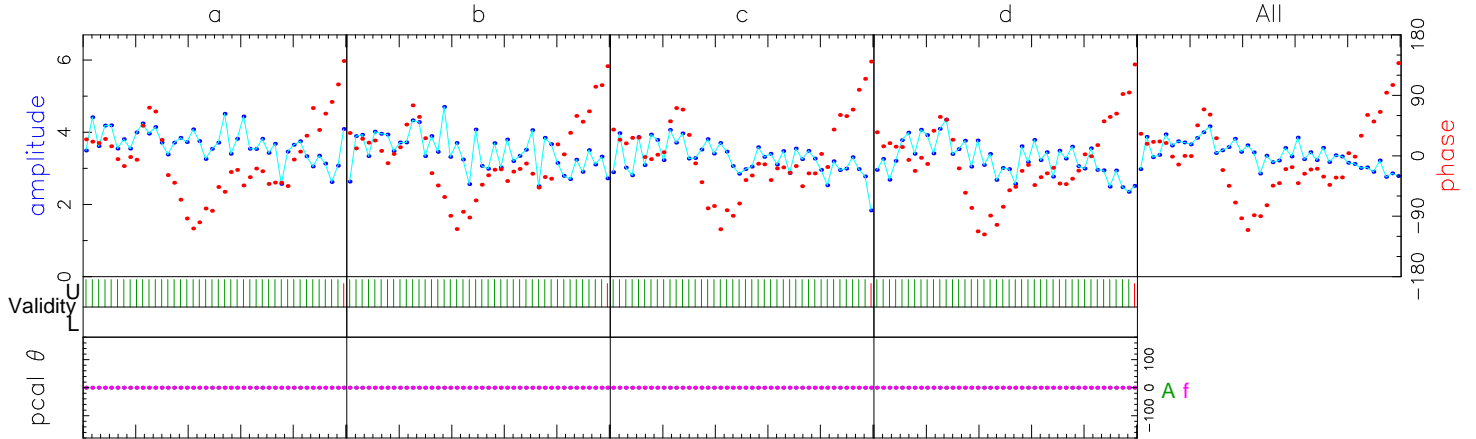
OJ287.1RG1Q3, No0022, Af

ALMA - VLBA\_FD, fgroup W, pol XR



Fringe quality 5  
 SNR 70.6  
 Int time 299.973  
 Amp 2.232  
 Phase -74.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.021083  
 MBD 0.002176  
 Fringe rate (Hz) 0.137689  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070816  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
	-9.8	-3.4	-2.1	-10.4	Phase	-6.5
	2.3	2.3	2.1	2.2	Ampl.	2.2
	7430.0	7429.9	7429.9	7429.8	Sbd box	7429.9
U/L	586/0	586/0	586/0	586/0	APs used	
A	0	0	0	0	PC freqs	
f	1000	1000	1000	1000	PC freqs	
A:f	0:0	0:0	0:0	0:0	PC phase	
A:f	0:0	0:0	0:0	0:0	ManI PC	
A	1000	1000	1000	1000	PC amp	
f	1000	1000	1000	1000		
A	W00UX	W01UX	W02UX	W03UX	Chan ids	
f	W01UR	W02UR	W03UR	W04UR	Tracks	
					Chan ids	
					Tracks	
Group delay (usec)(sbd)	-1.37283886985E+04		Apriori delay (usec)	-1.37284079414E+04	Resid mbdelay (usec)	2.17627E-03 +/- 3.4E-05
Sband delay (usec)	-1.37283868581E+04		Apriori clock (usec)	-2.1178708E+03	Resid sbdelay (usec)	2.10833E-02 +/- 1.3E-04
Phase delay (usec)	-1.37284079416E+04		Apriori clockrate (us/s)	-1.3800001E-06	Resid phdelay (usec)	-2.08381E-07 +/- 5.2E-08
Delay rate (us/s)	-7.21830324265E-01		Apriori rate (us/s)	-7.21831922700E-01	Resid rate (us/s)	1.59843E-06 +/- 3.0E-10
Total phase (deg)		-101.4	Apriori accel (us/s/s)	2.70295441594E-05	Resid phase (deg)	-74.7 +/- 1.6

	RMS	Theor.	Amplitude	2.232 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	54.3	5.3	Search (2048X16)	2.164	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -32.000 32.000
amp/seg (%)	55.7	9.2	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.009 0.009
ph/frq (deg)	5.2	1.6	Inc. seg. avg.	3.412	Sample rate(MISamp/s): 116	dr window (ns/s) -0.011 0.011
amp/frq (%)	3.7	2.8	Inc. frq. avg.	2.233	Data rate(Mb/s): 928	ion window (TEC) 0.00 0.00

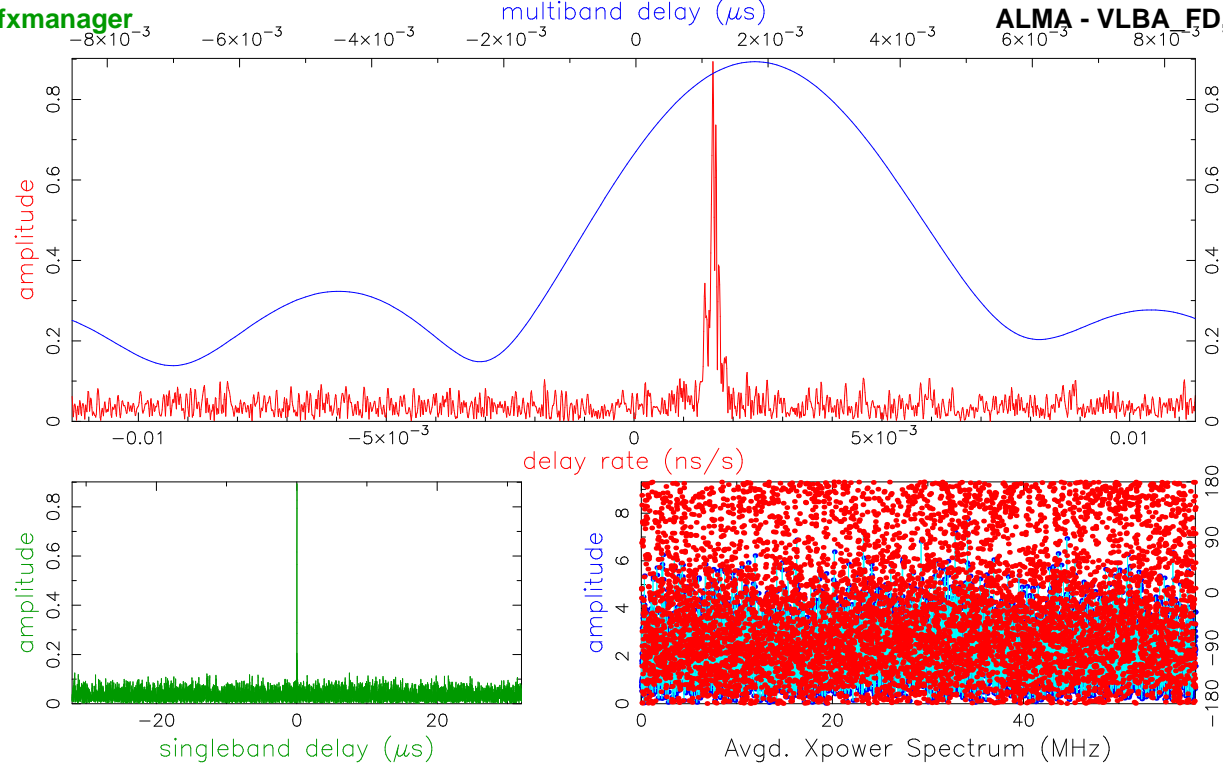
A: az 307.1 el 24.6 pa 128.6 f: az 234.0 el 73.3 pa 48.4 u,v (fr/asec) 4435.374 -6714.016 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211d/v1/1234/No0022/Af..1RG1Q3 Output file: /Exps/c211d/v1/1234/No0022/Af.W.8.1RG1Q3

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

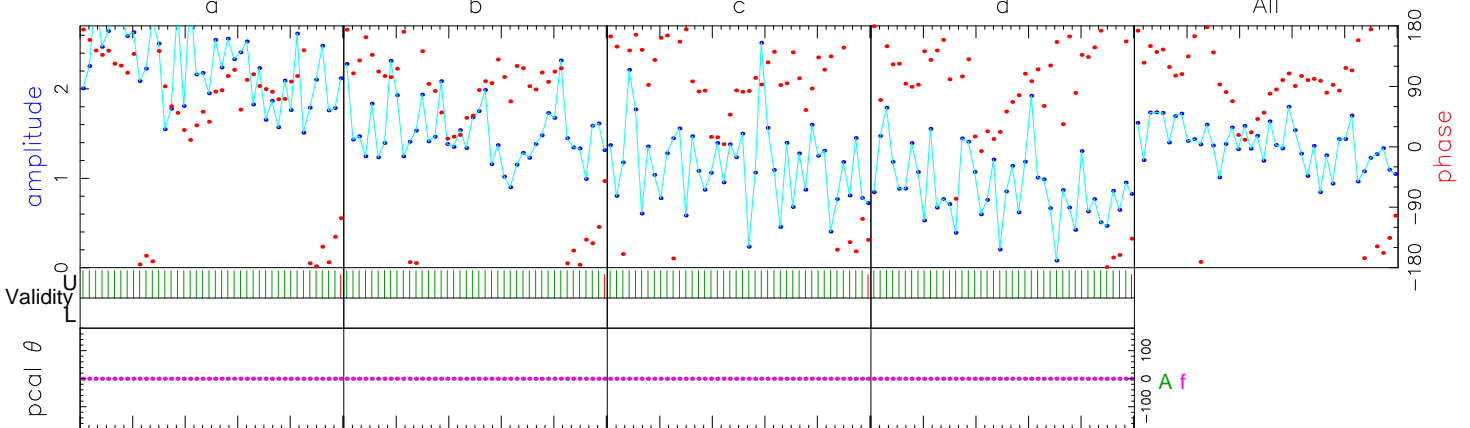
OJ287.1RG1Q3, No0022, Af

ALMA - VLBA\_FD, fgroup W, pol YL



Fringe quality 8  
 SNR 28.5  
 Int time 299.973  
 Amp 0.902  
 Phase 48.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.021110  
 MBD 0.001791  
 Fringe rate (Hz) 0.137655  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211d  
 Exper # 16383  
 Yr:day 2021:117  
 Start 022800.00  
 Stop 023300.03  
 FRT 023030.00  
 Corr/FF/build  
 2021:195:010042  
 2021:195:070853  
 2021:057:122453  
 RA & Dec (J2000)  
 08h54m48.874928s  
 +20°06'30.640850"

Amp. and Phase vs. time for each freq., 42 segs, 14 APs / seg (7.17 sec / seg.), time ticks 10 sec



	86151.11	86209.70	86268.30	86326.89	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0		
A	0	0	0	0		
f	1000	1000	1000	1000		
A:f	0:0	0:0	0:0	0:0		
A:f	0:0	0:0	0:0	0:0		
A	1000	1000	1000	1000		
f	1000	1000	1000	1000		
A	W00UY	W01UY	W02UY	W03UY		
f	W01UL	W02UL	W03UL	W04UL		

Group delay (usec)(sbd)	-1.37283890839E+04	Apriori delay (usec)	-1.37284079414E+04	Resid mbdelay (usec)	1.79084E-03	+/-	8.5E-05
Sband delay (usec)	-1.37283868311E+04	Apriori clock (usec)	-2.1178708E+03	Resid sbdelay (usec)	2.11103E-02	+/-	3.3E-04
Phase delay (usec)	-1.37284079377E+04	Apriori clockrate (us/s)	-1.3800001E-06	Resid phdelay (usec)	3.75691E-06	+/-	1.3E-07
Delay rate (us/s)	-7.21830324659E-01	Apriori rate (us/s)	-7.21831922700E-01	Resid rate (us/s)	1.59804E-06	+/-	7.5E-10
Total phase (deg)	21.6	Apriori accel (us/s/s)	2.70295441594E-05	Resid phase (deg)	48.2	+/-	4.0

ph/seg (deg)	RMS	Theor.	Amplitude	0.902 +/- 0.032	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	54.8	13.0	Search (2048X16)	0.862	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000 32.000
ph/frq (deg)	60.8	22.7	Interp.	0.000	Bits/sample: 2x2	mb window (us)	-0.009 0.009
amp/frq (%)	6.5	4.0	Inc. seg. avg.	1.357	Sample rate(MISamp/s): 116	dr window (ns/s)	-0.011 0.011
	31.9	7.0	Inc. frq. avg.	0.901	Data rate(Mb/s): 928	ion window (TEC)	0.00 0.00

A: az 307.1 el 24.6 pa 128.6 f: az 234.0 el 73.3 pa 48.4 u,v (fr/asec) 4435.374 -6714.016 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211d/v1/1234/No0022/Af..1RG1Q3 Output file: /Exps/c211d/v1/1234/No0022/Af.W.9.1RG1Q3