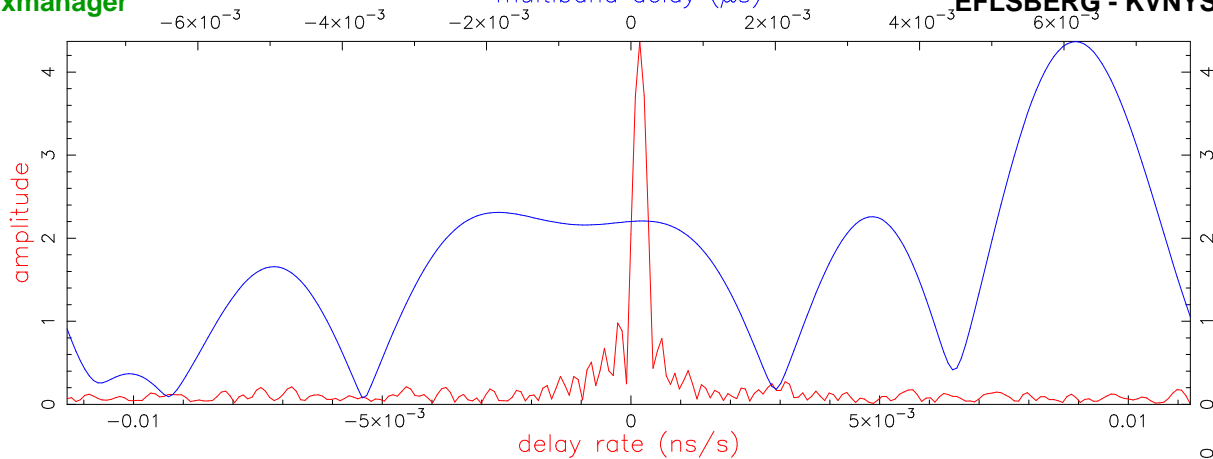
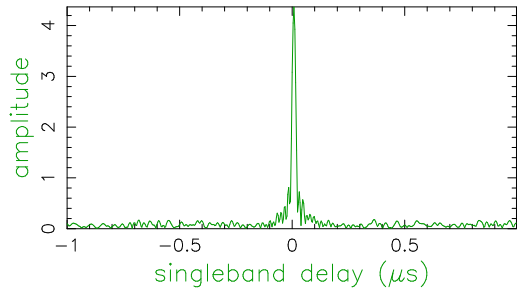


multiband delay ( $\mu$ s)

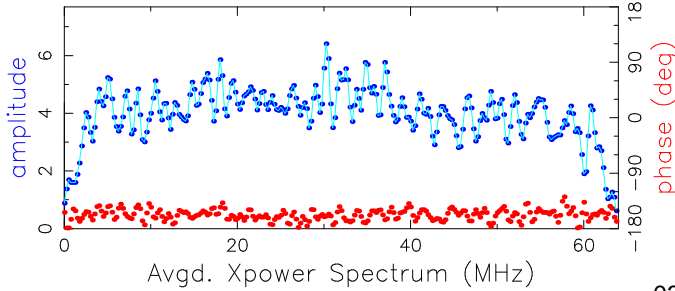


Fringe quality 6

SNR 76.4  
Int time 40.852  
Amp 4.369  
Phase -141.9  
PFD 0.0e+00  
Delays (us)  
SBD 0.007491  
MBD 0.006150  
Fringe rate (Hz)  
0.013574  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

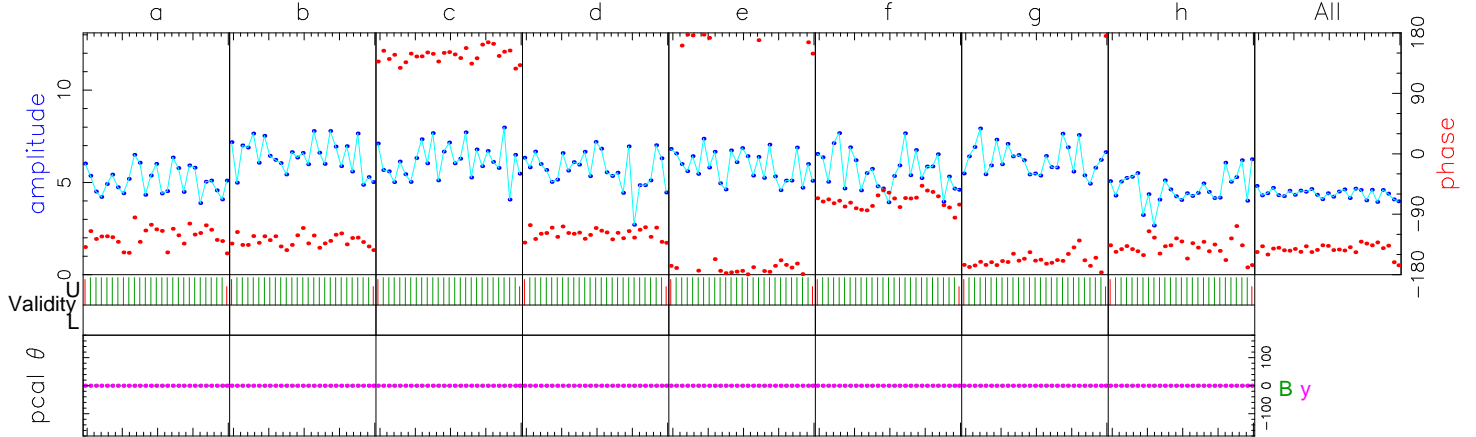


delay rate (ns/s)

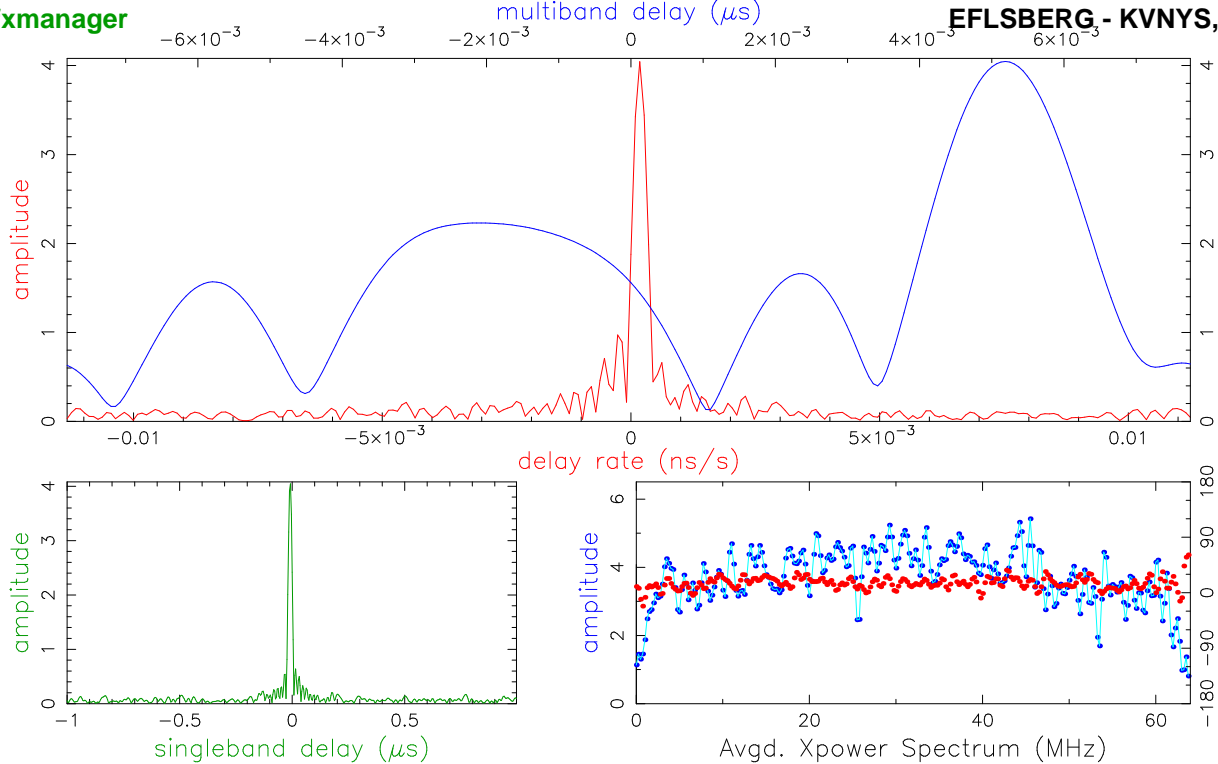


Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 080618.88  
Stop 080659.84  
FRT 080330.00  
Corr/FF/build  
2021:302:193655  
2021:303:113956  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:y	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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-3.44545835184E+03	-3.44545701060E+03	-3.44546450643E+03	-3.44546450185E+03	-3.44546450185E+03	-3.44546450185E+03	-3.44546450185E+03	-3.44546450185E+03	6.15001E-03	+/- 1.4E-05
Sband delay (usec)	-122.2	-128.9	146.6	-118.6	-176.5	-69.8	-159.0	-139.3	7.49125E-03	+/- 1.1E-04
Phase delay (usec)	5.0	6.4	6.1	5.7	5.8	5.6	6.1	4.5	-4.57676E-06	+/- 4.8E-08
Delay rate (us/s)	257.8	258.9	259.5	259.8	259.8	259.6	259.2	257.9	1.57578E-07	+/- 2.0E-09
Total phase (deg)			-210.1						-141.9	+/- 1.5
RMS	7.2	3.9	4.369 +/- 0.057	4.279	4.279	4.279	4.279	4.279		
ph/seg (deg)	7.2	3.9	4.369 +/- 0.057	4.279	4.279	4.279	4.279	4.279		
amp/seg (%)	5.3	6.8	4.369 +/- 0.057	4.279	4.279	4.279	4.279	4.279		
ph/frq (deg)	46.4	2.1	4.369 +/- 0.057	4.279	4.279	4.279	4.279	4.279		
amp/frq (%)	32.1	3.7	4.369 +/- 0.057	4.279	4.279	4.279	4.279	4.279		
Search (256X32)			4.279	4.279	4.279	4.279	4.279	4.279		
Interp.			0.000	0.000	0.000	0.000	0.000	0.000		
Inc. seg. avg.			4.389	4.389	4.389	4.389	4.389	4.389		
Inc. frq. avg.			5.644	5.644	5.644	5.644	5.644	5.644		
Apriori delay (usec)			4.279	4.279	4.279	4.279	4.279	4.279		
Apriori clock (usec)			0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00		
Apriori clockrate (us/s)			1.12723198438E+00	1.12723198438E+00	1.12723198438E+00	1.12723198438E+00	1.12723198438E+00	1.12723198438E+00		
Apriori rate (us/s)			3.24452273339E-05	3.24452273339E-05	3.24452273339E-05	3.24452273339E-05	3.24452273339E-05	3.24452273339E-05		
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)										
PCal period (AP's) 5, 5										
sb window (us)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										

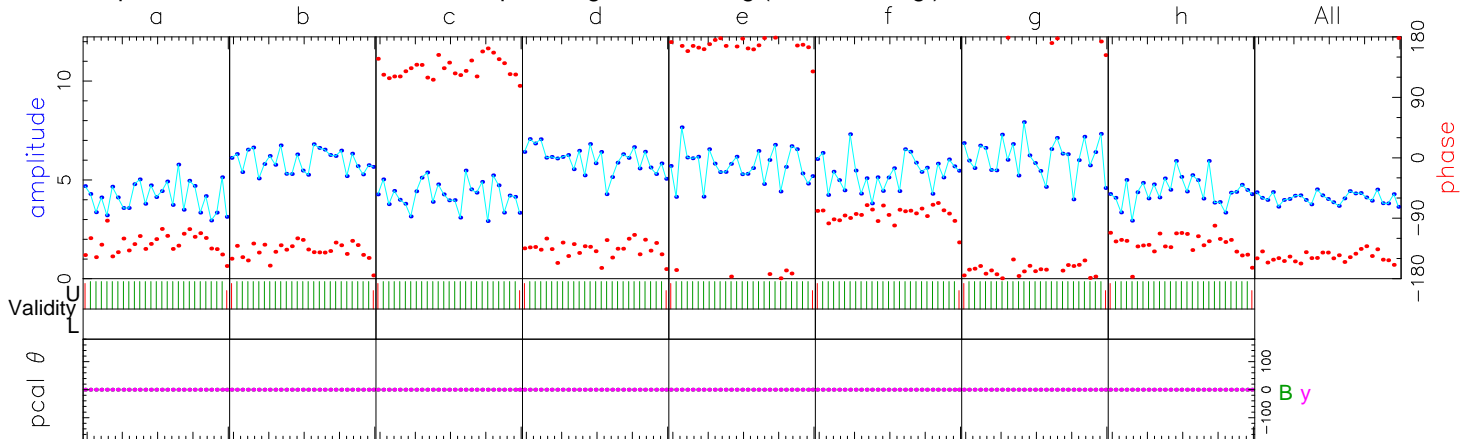


Fringe quality 6

SNR 71.3  
Int time 40.852  
Amp 4.081  
Phase -148.0  
PFD 0.0e+00  
Delays (us)  
SBD -0.009069  
MBD 0.005150  
Fringe rate (Hz)  
0.013746  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 080618.88  
Stop 080659.84  
FRT 080330.00  
Corr/FF/build  
2021:302:193655  
2021:303:113956  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

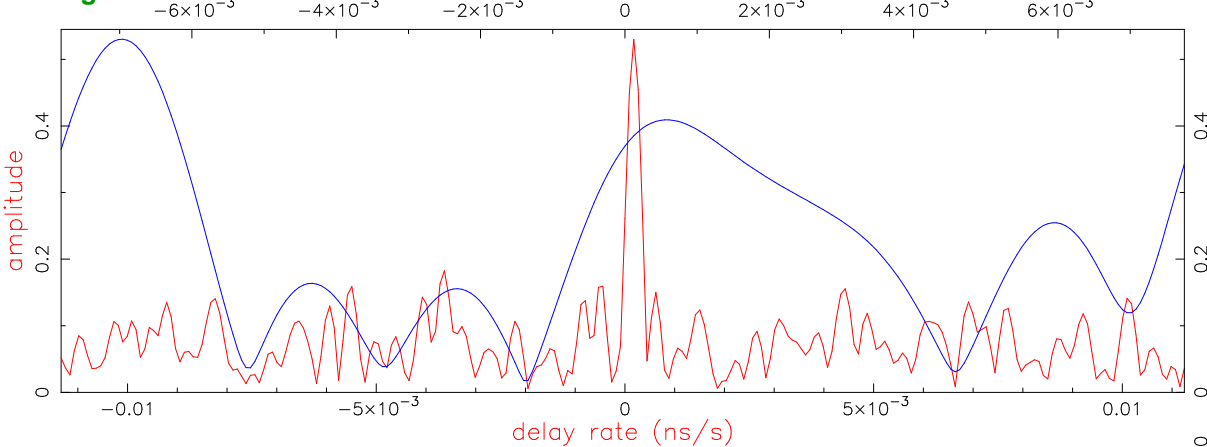


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:y	0:0	0:0	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	
y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-3.44547497681E+03	-3.44547357110E+03	133.7	-135.6	171.6	-84.0	-170.6	-127.6	Resid mbdelay (usec)	5.15004E-03 +/- 1.5E-05
Sband delay (usec)	-3.44547357110E+03	-3.44546450662E+03	4.1	5.9	5.6	5.3	6.0	4.3	Resid sbdelay (usec)	-9.06925E-03 +/- 1.2E-04
Phase delay (usec)	-3.44546450662E+03	1.1273214395E+00	0:0	0:0	0:0	0:0	0:0	0:0	Resid phdelay (usec)	-4.77293E-06 +/- 5.2E-08
Delay rate (us/s)	1.1273214395E+00		0:0	0:0	0:0	0:0	0:0	0:0	Resid rate (us/s)	1.59579E-07 +/- 2.2E-09
Total phase (deg)			-216.2						Resid phase (deg)	-148.0 +/- 1.6
ph/seg (deg)	8.8	4.2	Search (256X32)	3.975					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	6.2	7.3	Interp.	0.000					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	47.4	2.3	Inc. seg. avg.	4.080					Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	32.6	4.0	Inc. frq. avg.	5.142					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

B: az 57.0 el 42.6 pa -58.1 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) -10212.037 4149.157 simultaneous interpolator

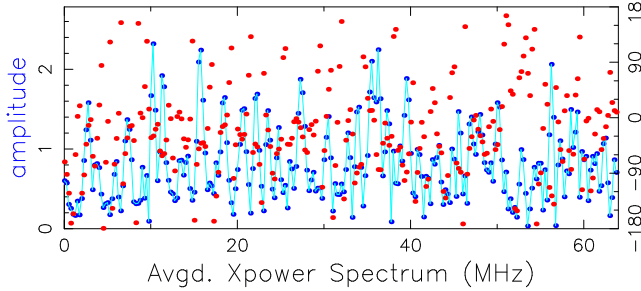
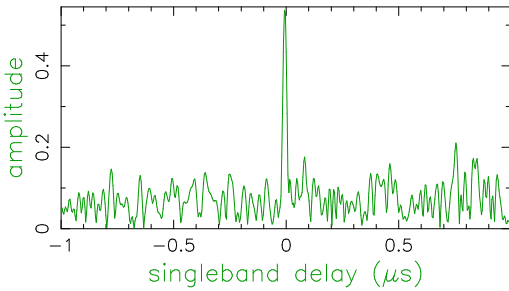
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/By..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/By.W.3.1WZMQH

multiband delay ( $\mu$ s)



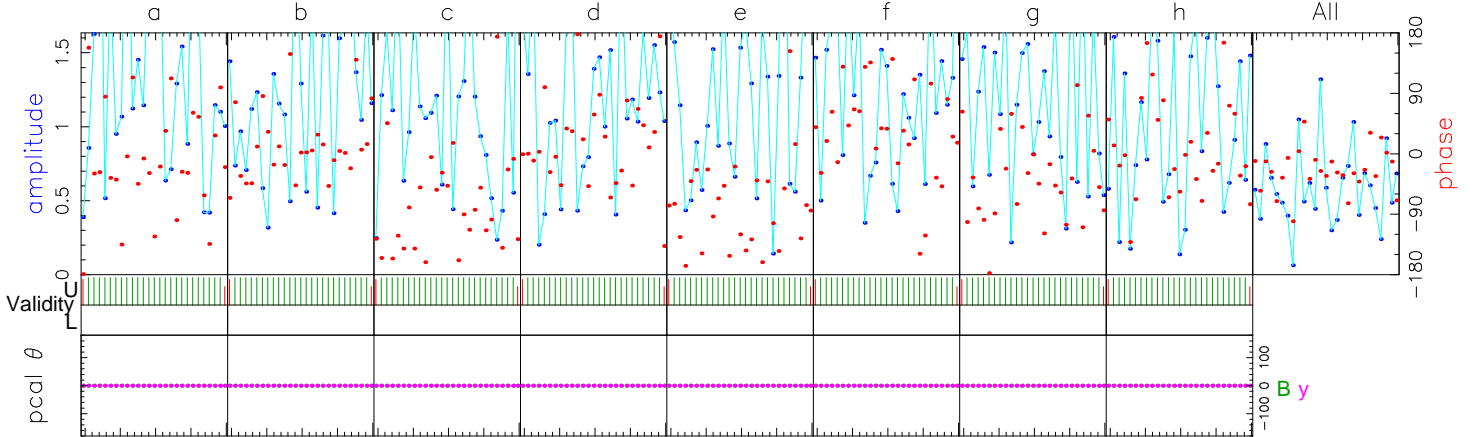
Fringe quality 9

SNR 9.5  
 Int time 40.852  
 Amp 0.545  
 Phase -22.2  
 PFD 8.4e-14  
 Delays (us)  
 SBD -0.006120  
 MBD -0.007016  
 Fringe rate (Hz) 0.012356  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:113957  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

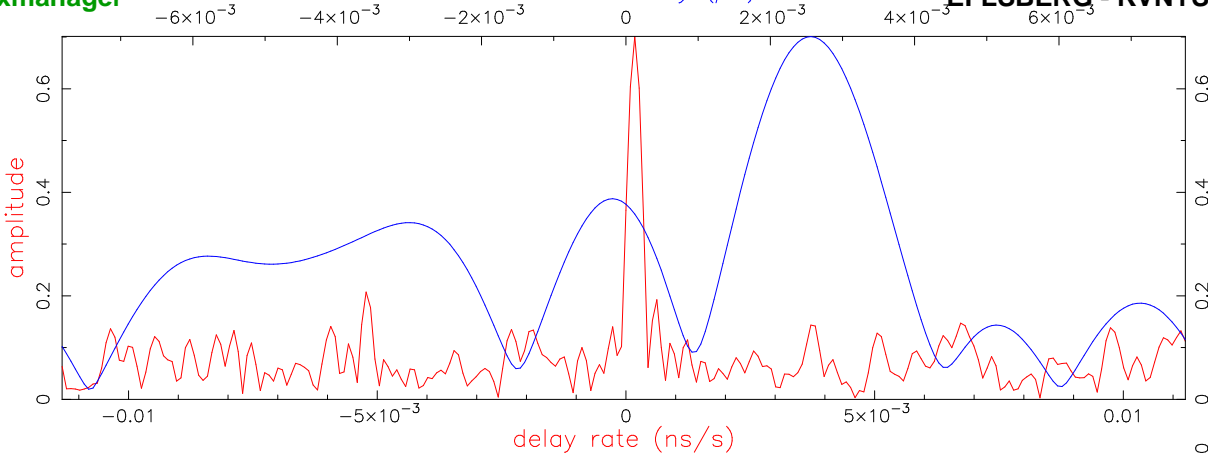
Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



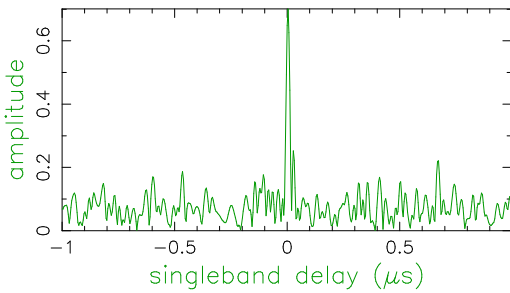
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-3.44547151818E+03				-3.44546450185E+03					
Sband delay (usec)	-3.44547062185E+03				-2.2767000E+01					
Phase delay (usec)	-3.44546450257E+03				0.0000000E+00					
Delay rate (us/s)	1.12723212782E+00				1.12723198438E+00					
Total phase (deg)			-90.4		3.24452273339E-05					
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										
PC period (AP's) 5, 5										
PC freqs										
PC phase										
Mani PC										
PC amp										
Chan ids										
Tracks										
Chan ids										
Tracks										
ph/seg (deg)	31.8	31.3								
amp/seg (%)	49.9	54.6								
ph/frq (deg)	52.5	17.0								
amp/frq (%)	40.4	29.7								
Amplitude					0.545 +/- 0.057					
Search (256X32)					0.515					
Interp.					0.000					
Inc. seg. avg.					0.517					
Inc. frq. avg.					0.712					
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

multiband delay ( $\mu$ s)

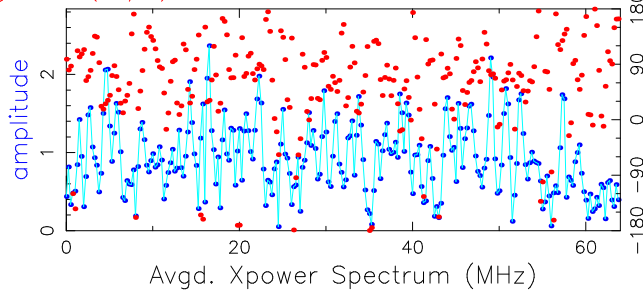
Fringe quality 9



SNR 12.3  
Int time 40.852  
Amp 0.701  
Phase 86.5  
PFD 1.0e-26  
Delays (us)  
SBD 0.003564  
MBD 0.002544  
Fringe rate (Hz)  
0.014825  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512

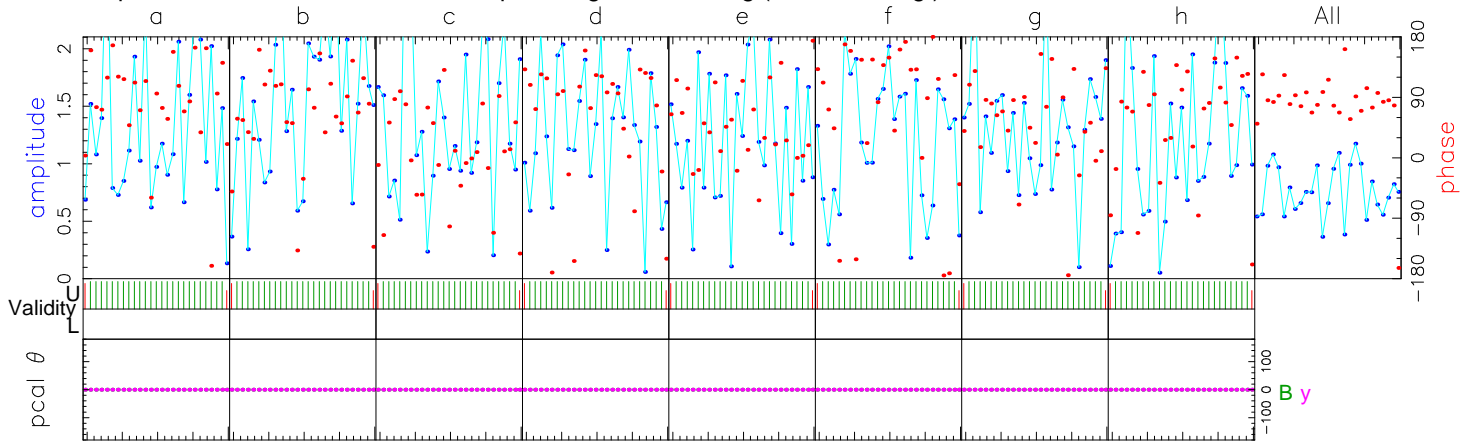


delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 080618.88  
Stop 080659.84  
FRT 080330.00  
Corr/FF/build  
2021:302:193655  
2021:303:113957  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	86.5	86.5
B	1000	1000	1000	1000	1000	1000	1000	1000	0.8	0.8
y	1000	1000	1000	1000	1000	1000	1000	1000	257.9	257.9
B:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:y	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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-3.44546195828E+03		Apriori delay (usec)		-3.44546450185E+03		Resid mbdelay (usec)		2.54357E-03	+/- 8.9E-05
Sband delay (usec)	-3.44546093835E+03		Apriori clock (usec)		-2.2767000E+01		Resid sbdelay (usec)		3.56350E-03	+/- 7.0E-04
Phase delay (usec)	-3.44546449906E+03		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		2.78989E-06	+/- 3.0E-07
Delay rate (us/s)	1.12723215648E+00		Apriori rate (us/s)		1.12723198438E+00		Resid rate (us/s)		1.72106E-07	+/- 1.3E-08
Total phase (deg)	18.4		Apriori accel (us/s/s)		3.24452273339E-05		Resid phase (deg)		86.5	+/- 9.4

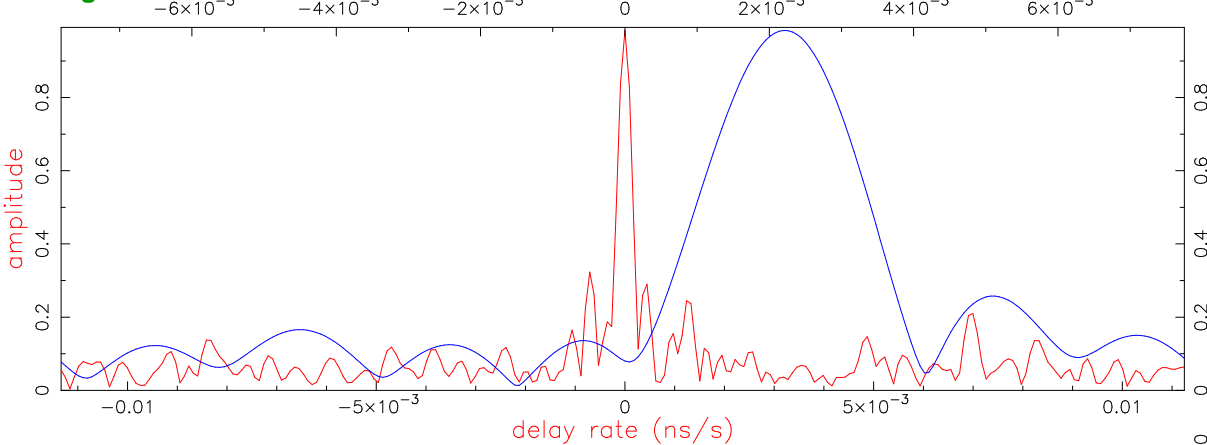
	RMS	Theor.	Amplitude	0.701 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	28.5	24.3	Search (256X32)	0.693	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	32.7	42.4	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	43.6	13.2	Inc. seg. avg.	0.704	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	27.3	23.1	Inc. frq. avg.	0.832	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

B: az 57.0 el 42.6 pa -58.1 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) -10212.037 4149.157 simultaneous interpolator

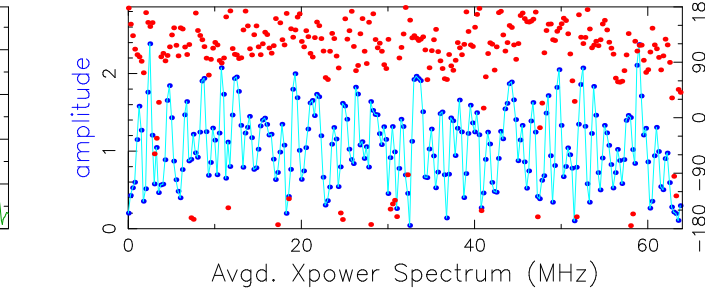
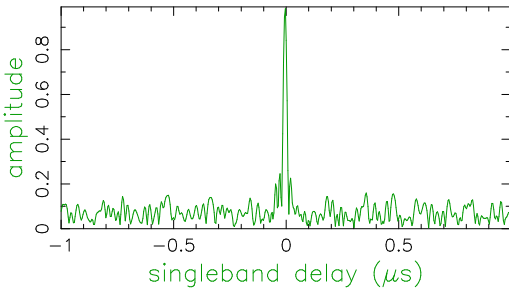
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/By..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/By.W.8.1WZMQH

multiband delay ( $\mu$ s)

Fringe quality 9

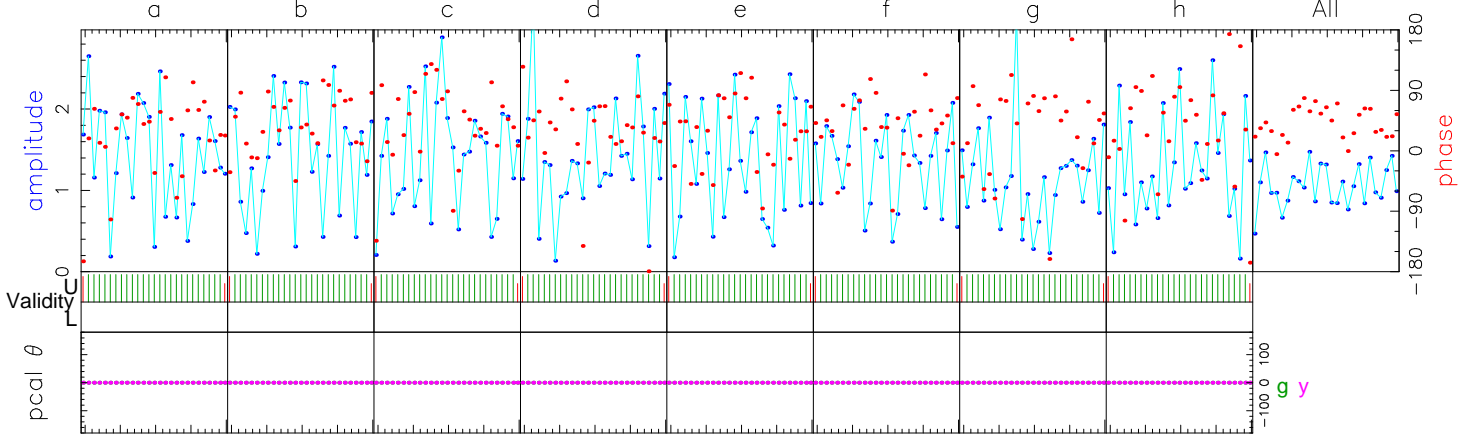


SNR 17.3  
 Int time 40.852  
 Amp 0.992  
 Phase 42.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.005065  
 MBD 0.002214  
 Fringe rate (Hz)  
 -0.002995  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Yr:day 16383  
 Start 2021:116  
 Stop 080618.88  
 FRT 080659.84  
 Corr/FF/build  
 2021:302:193655  
 2021:303:113958  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		255.7	
g	0	0	0	0	0	0	0	0			
y	1000	1000	1000	1000	1000	1000	1000	1000			
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
g	1000	1000	1000	1000	1000	1000	1000	1000			
y	1000	1000	1000	1000	1000	1000	1000	1000			
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)	-4.67928712240E+03		Apriori delay (usec)		-4.67928933603E+03		Resid mbdelay (usec)		2.21363E-03	+/- 6.3E-05	
Sband delay (usec)	-4.67929440053E+03		Apriori clock (usec)		-2.6758194E-01		Resid sbdelay (usec)		-5.06450E-03	+/- 5.0E-04	
Phase delay (usec)	-4.67928933465E+03		Apriori clockrate (us/s)		7.2000003E-08		Resid phdelay (usec)		1.37745E-06	+/- 2.1E-07	
Delay rate (us/s)	6.20865082952E-01		Apriori rate (us/s)		6.20865117723E-01		Resid rate (us/s)		-3.47703E-08	+/- 9.0E-09	
Total phase (deg)			-103.2		Apriori accel (us/s/s)		5.67832617221E-05		Resid phase (deg)	42.7	+/- 6.6

ph/seg (deg) 23.0 17.2 Theor. Amplitude 0.992 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 26.3 30.0 Search (256X32) 0.936 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 7.5 9.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 15.7 16.3 Inc. seg. avg. 1.015 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 g: az 20.3 el 38.6 pa -7.6 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) -5564.899 7591.110 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/gy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/gy.W.11.1WZMQH simultaneous interpolator



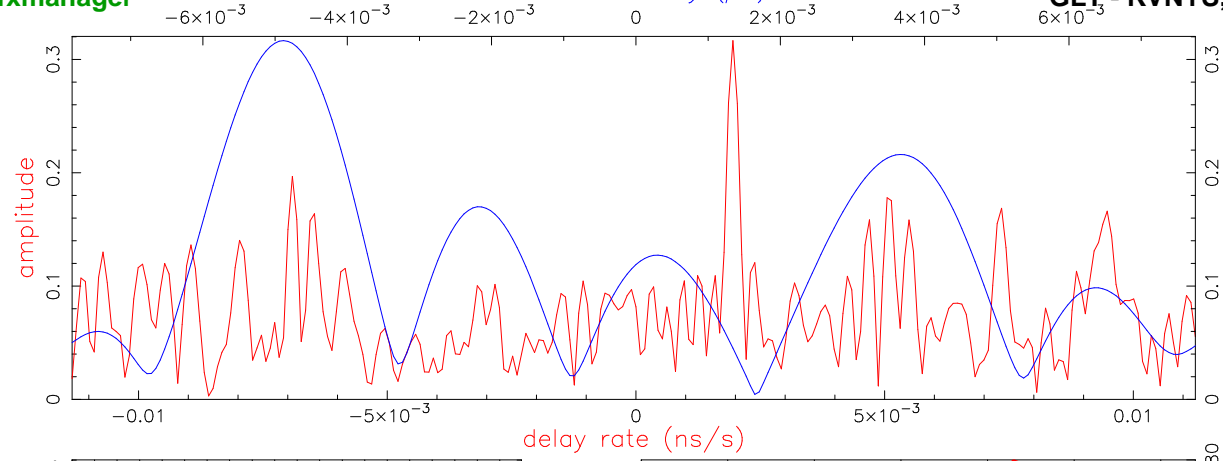
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

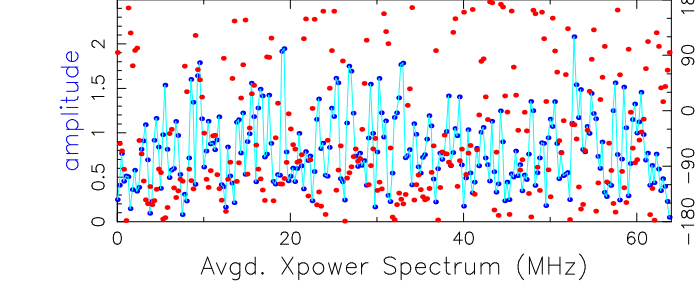
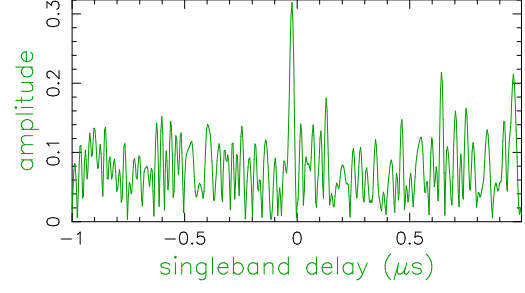
NRAO150.1WZMQH, No0029, gy

GLT - KVNYS, fgroup W, pol LR

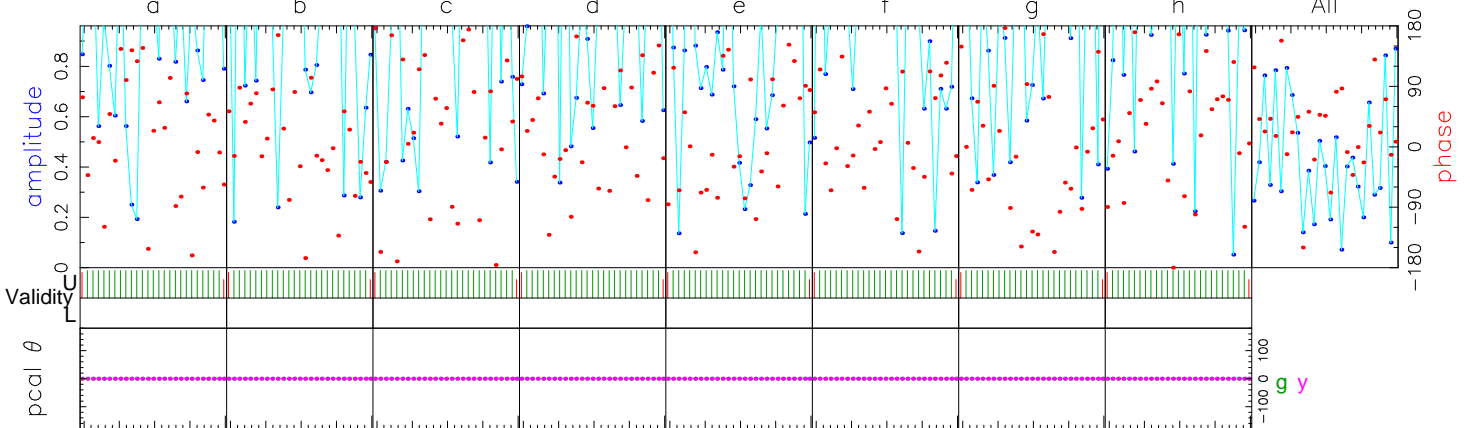
multiband delay ( $\mu$ s)



Fringe quality 0  
 SNR 5.5  
 Int time 40.852  
 Amp 0.320  
 Phase 29.6  
 PFD 6.1e-01  
 Delays (us)  
 SBD -0.023510  
 MBD -0.004884  
 Fringe rate (Hz)  
 0.164762  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:113958  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

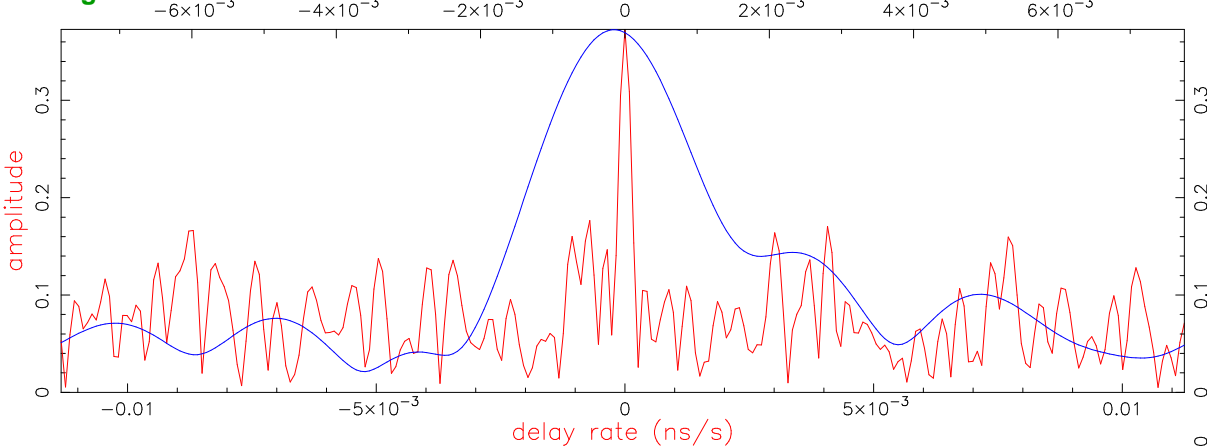


Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



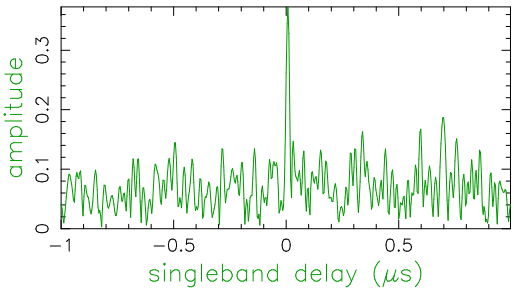
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
g	0	0	0	0	0	0	0	0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-4.67930984544E+03				-4.67928933603E+03				-4.88441E-03	+/- 2.0E-04
Sband delay (usec)	-4.67931284553E+03				-2.6758194E-01				-2.35095E-02	+/- 1.6E-03
Phase delay (usec)	-4.67928933507E+03				7.2000003E-08				9.55061E-07	+/- 6.7E-07
Delay rate (us/s)	6.20867030448E-01				6.20865117723E-01				1.91273E-06	+/- 2.8E-08
Total phase (deg)			-116.3		5.67832617221E-05				29.6	+/- 20.7
	RMS	Theor.	Amplitude	0.320 +/- 0.058	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	61.8	53.8	Search (256X32)	0.301	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)		-1.000	1.000	
amp/seg (%)	80.8	93.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	43.9	29.3	Inc. seg. avg.	0.301	Sample rate(MISamp/s): 128	dr window (ns/s)		-0.011	0.011	
amp/frq (%)	50.0	51.1	Inc. frq. avg.	0.335	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite		ion window (TEC)	0.00	0.00
g: az 20.3 el 38.6 pa -7.6	y: az 308.3 el 58.1 pa 97.9		u,v (fr/asec) -5564.899 7591.110						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/c211c/v1/1234/No0029/gy..1WZMQH		Output file: /Exps/c211c/v1/1234/No0029/gy.W.13.1WZMQH							

multiband delay ( $\mu$ s)

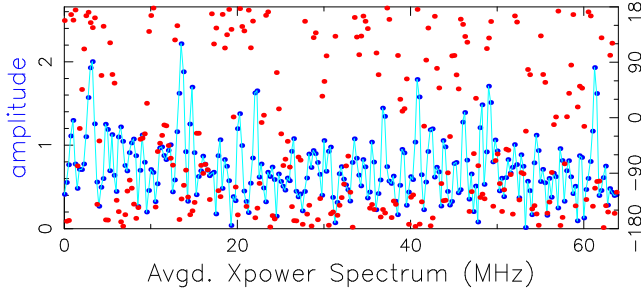


Fringe quality 0

SNR 6.5  
 Int time 40.852  
 Amp 0.373  
 Phase -75.0  
 PFD 2.5e-03  
 Delays (us)  
 SBD 0.007434  
 MBD -0.000144  
 Fringe rate (Hz)  
 -0.001156  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

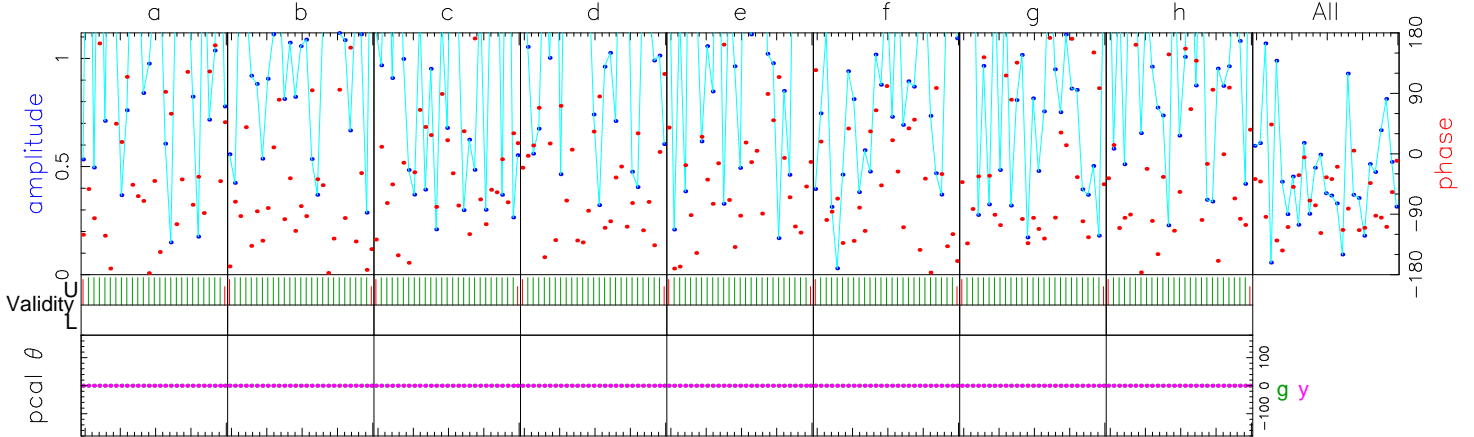


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:113959  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-93.8	-98.9	-51.0	-68.9	-49.9	-68.3	-106.7	-87.8	Phase	-75.0
	0.4	0.4	0.5	0.6	0.5	0.2	0.3	0.3	Ampl.	0.4
	268.0	165.1	264.1	123.5	259.2	307.9	434.4	314.6	Sbd box	258.9
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
g	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-4.67928947953E+03		Apriori delay (usec)		-4.67928933603E+03		Resid mbdelay (usec)		-1.43500E-04	+/- 1.7E-04
Sband delay (usec)	-4.67928190228E+03		Apriori clock (usec)		-2.6758194E-01		Resid sbdelay (usec)		7.43375E-03	+/- 1.3E-03
Phase delay (usec)	-4.67928933845E+03		Apriori clockrate (us/s)		7.2000003E-08		Resid phdelay (usec)		-2.41990E-06	+/- 5.7E-07
Delay rate (us/s)	6.20865104305E-01		Apriori rate (us/s)		6.20865117723E-01		Resid rate (us/s)		-1.34172E-08	+/- 2.4E-08
Total phase (deg)			Apriori accel (us/s/s)		5.67832617221E-05		Resid phase (deg)		-75.0	+/- 17.6

	RMS	Theor.	Amplitude	0.373 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	46.5	45.7	Search (256X32)	0.369	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	73.2	79.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	23.7	24.9	Inc. seg. avg.	0.366	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	35.2	43.4	Inc. frq. avg.	0.365	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

g: az 20.3 el 38.6 pa -7.6 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) -5564.899 7591.110 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/gy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/gy.W.19.1WZMQH

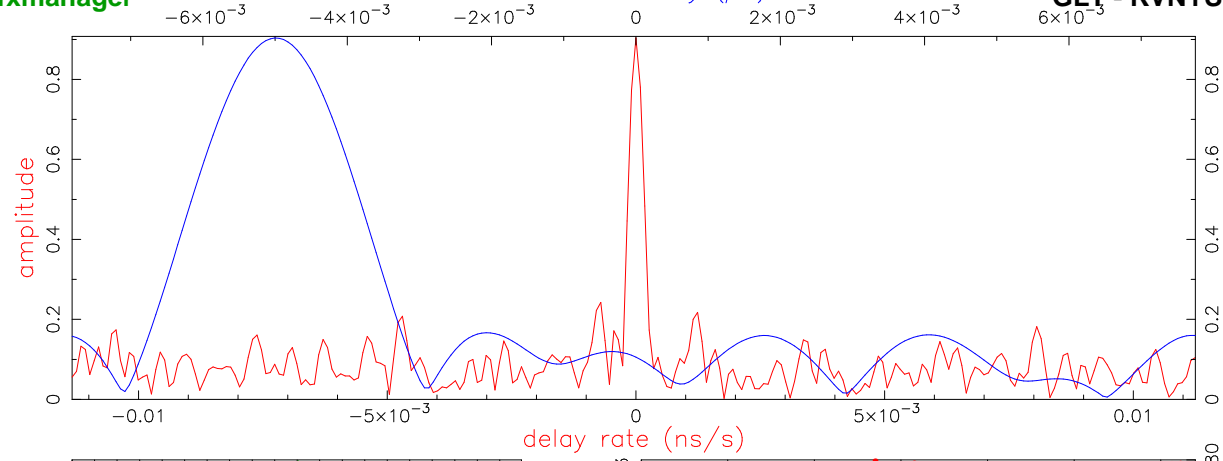
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, gy

GLT - KVNYS, fgroup W, pol LL

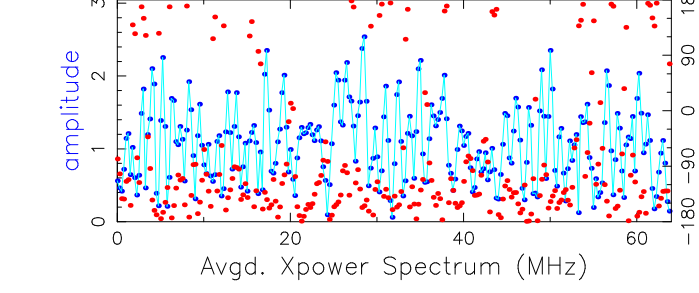
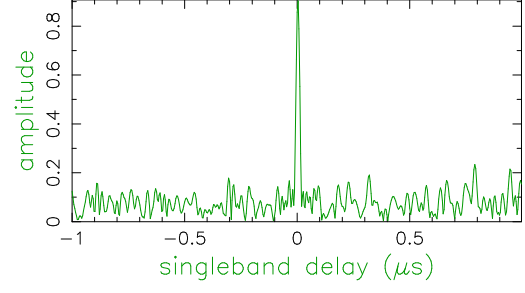
multiband delay ( $\mu$ s)



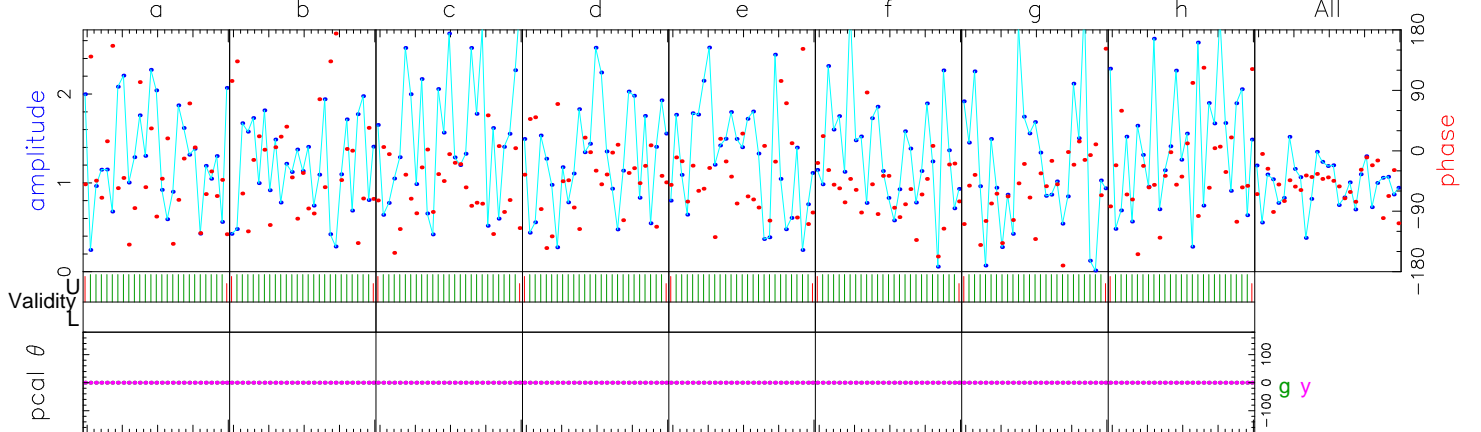
Fringe quality 9

SNR 15.9  
 Int time 40.852  
 Amp 0.908  
 Phase -48.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.003049  
 MBD -0.004982  
 Fringe rate (Hz) -0.000764  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:113957  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-48.2	-40.9	-55.8	-45.4	-42.3	-55.2	-50.8	-45.6	Phase	-48.7
	0.7	0.6	1.2	0.9	0.9	1.1	0.9	0.9	Ampl.	0.9
	257.2	258.4	257.5	257.8	257.9	257.9	258.0	257.7	Sbd box	257.8
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
g	0	0	0	0	0	0	0	0	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
g:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
g	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
g	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)	-4.67927869334E+03		Apriori delay (usec)		-4.67928933603E+03		Resid mbdelay (usec)		-4.98231E-03	+/- 6.8E-05
Sband delay (usec)	-4.67928628703E+03		Apriori clock (usec)		-2.6758194E-01		Resid sbdelay (usec)		3.04900E-03	+/- 5.4E-04
Phase delay (usec)	-4.67928933760E+03		Apriori clockrate (us/s)		7.2000003E-08		Resid phdelay (usec)		-1.56995E-06	+/- 2.3E-07
Delay rate (us/s)	6.20865108857E-01		Apriori rate (us/s)		6.20865117723E-01		Resid rate (us/s)		-8.86547E-09	+/- 9.9E-09
Total phase (deg)			Apriori accel (us/s/s)		5.67832617221E-05		Resid phase (deg)		-48.7	+/- 7.2

ph/seg (deg) 25.1 18.8      Amplitude 0.908 +/- 0.057      Pcal mode: MANUAL, MANUAL      PC period (AP's) 5, 5

amp/seg (%) 29.1 32.8      Search (256X32) 0.899      Pcal rate: 0.000E+00, 0.000E+00 (us/s)      sb window (us) -1.000 1.000

ph/frq (deg) 6.1 10.2      Interp. 0.000      Bits/sample: 2x2      SampCntNorm: enabled      mb window (us) -0.008 0.008

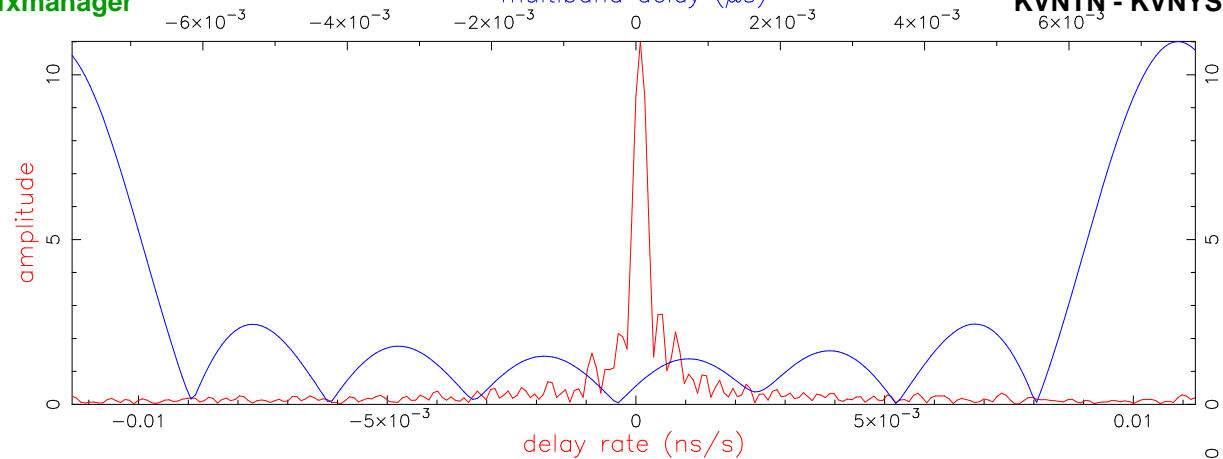
amp/frq (%) 17.7 17.8      Inc. seg. avg. 0.941      Sample rate(MISamp/s): 128      dr window (ns/s) -0.011 0.011

g: az 20.3 el 38.6 pa -7.6      y: az 308.3 el 58.1 pa 97.9      u,v (fr/asec) -5564.899 7591.110      nlags: 256      t\_cohere infinite      ion window (TEC) 0.00 0.00

Control file: cf\_1234\_gmva      Input file: /Exps/c211c/v1/1234/No0029/gy..1WZMQH      Output file: /Exps/c211c/v1/1234/No0029/gy.W.4.1WZMQH      simultaneous interpolator

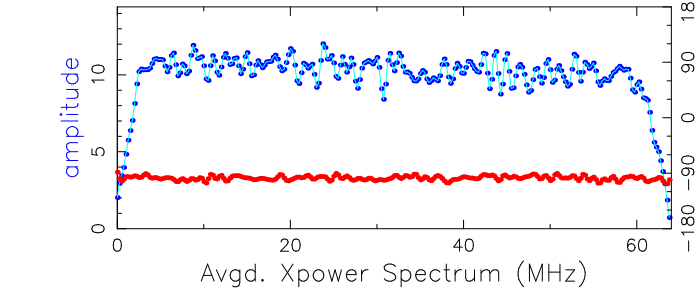
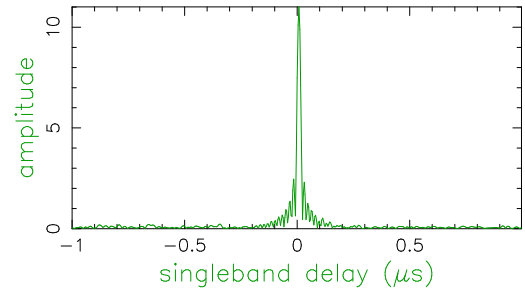


multiband delay ( $\mu$ s)



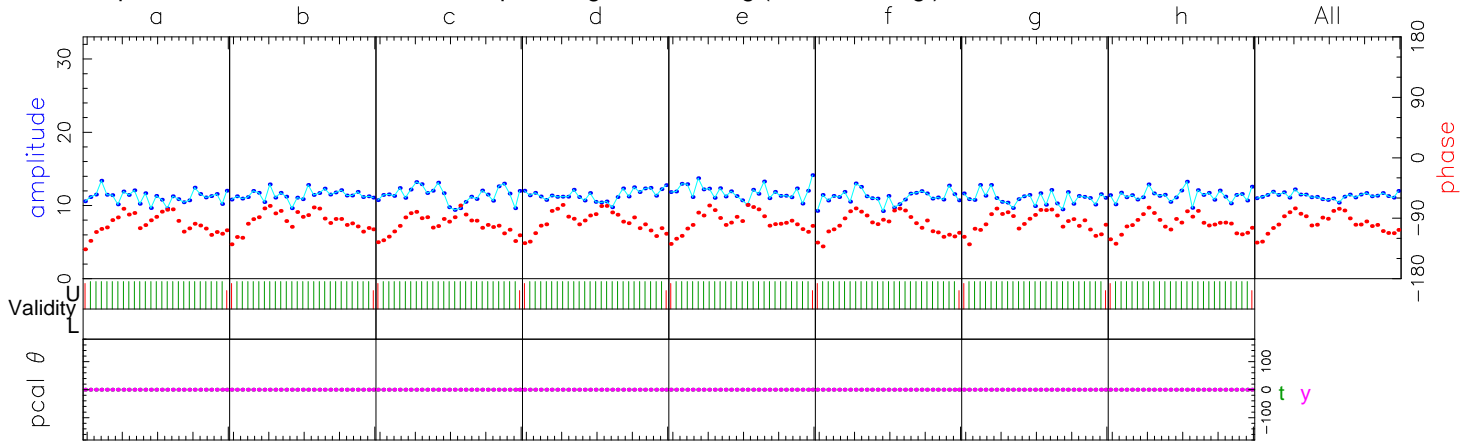
Fringe quality 8

SNR 192.5  
Int time 40.852  
Amp 11.013  
Phase -96.8  
PFD 0.0e+00  
Delays (us)  
SBD 0.007598  
MBD 0.007511  
Fringe rate (Hz)  
0.009723  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 080618.88  
Stop 080659.84  
FRT 080330.00  
Corr/FF/build  
2021:302:193655  
2021:303:114007  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec

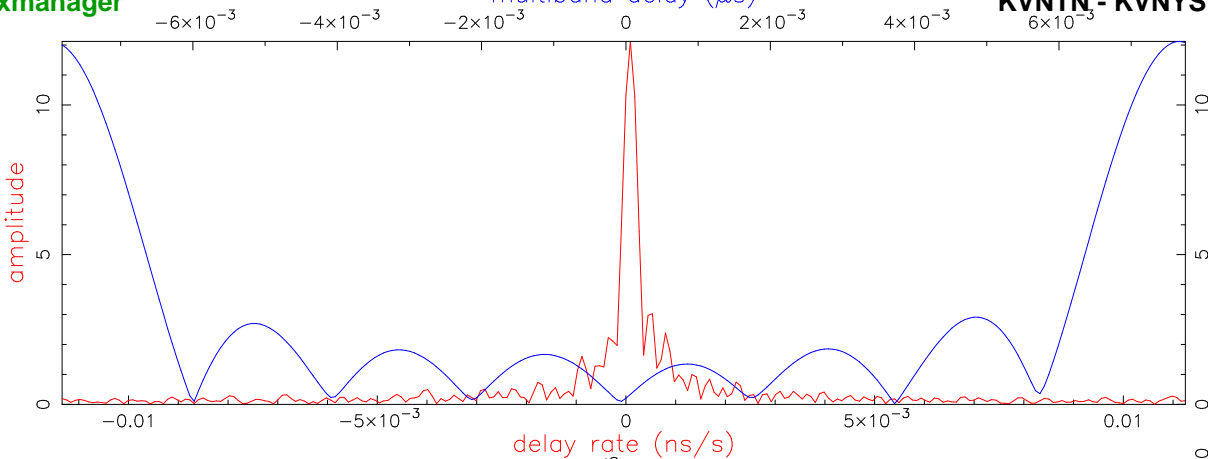


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-99.1	-93.6	-99.6	-95.2	-94.9	-98.3	-95.6	-98.2	Phase	-96.8
	10.8	11.1	11.2	11.0	11.5	10.8	10.7	11.1	Ampl.	11.0
	259.0	259.0	258.8	259.1	258.8	259.0	259.0	258.8	Sbd box	258.9
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	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)	-5.11540916480E+02		Apriori delay (usec)		-5.11548427625E+02		Resid mbdelay (usec)		7.51114E-03	+/- 5.6E-06
Sband delay (usec)	-5.11540829625E+02		Apriori clock (usec)		-9.6879005E-01		Resid sbdelay (usec)		7.59800E-03	+/- 4.5E-05
Phase delay (usec)	-5.11548430746E+02		Apriori clockrate (us/s)		-4.9999999E-08		Resid phdelay (usec)		-3.12138E-06	+/- 1.9E-08
Delay rate (us/s)	-2.31209194463E-02		Apriori rate (us/s)		-2.31210323224E-02		Resid rate (us/s)		1.12876E-07	+/- 8.1E-10
Total phase (deg)			Apriori accel (us/s/s)		-2.61218776055E-06		Resid phase (deg)		-96.8	+/- 0.6

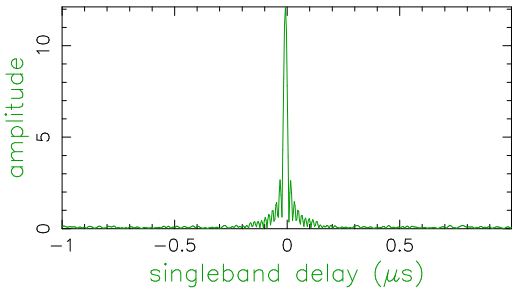
ph/seg (deg) 13.7 1.5 Search (256X32) 11.013 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 4.5 2.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 2.4 0.8 Inc. seg. avg. 11.324 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 2.1 1.5 Inc. frq. avg. 11.016 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
t: az 313.4 el 55.6 pa 105.4 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 207.127 -594.007 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/ty..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ty.W.69.1WZMQH

multiband delay ( $\mu$ s)

Fringe quality 8

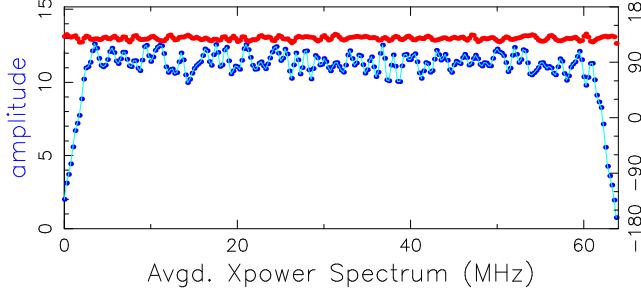


SNR 211.9  
Int time 40.852  
Amp 12.124  
Phase 128.4  
PFD 0.0e+00  
Delays (us)  
SBD -0.008003  
MBD -0.007959  
Fringe rate (Hz)  
0.009809  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



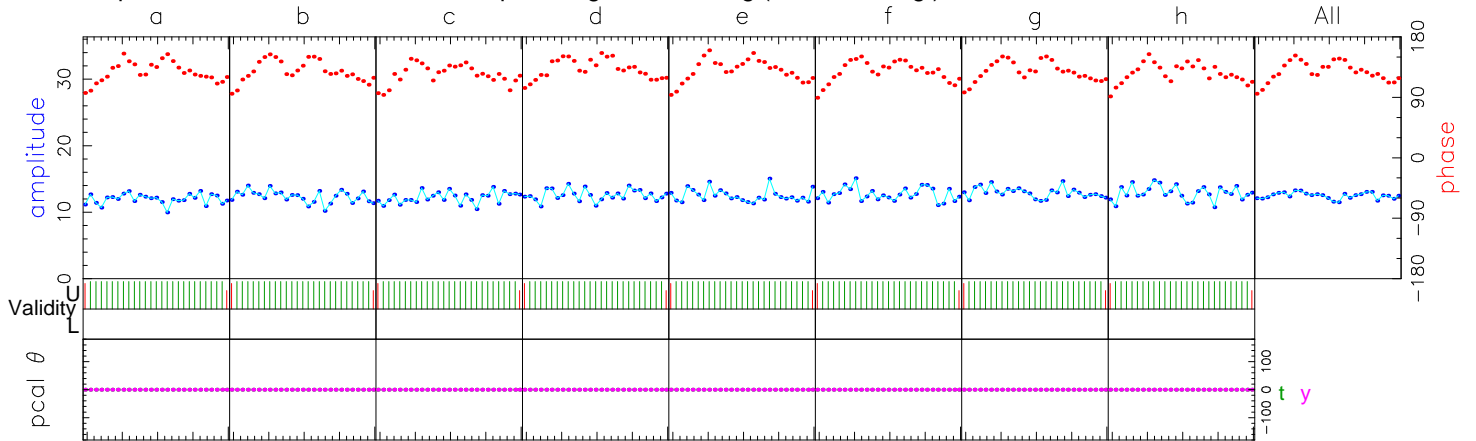
singleband delay ( $\mu$ s)

delay rate (ns/s)



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 080618.88  
Stop 080659.84  
FRT 080330.00  
Corr/FF/build  
2021:302:193655  
2021:303:114008  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

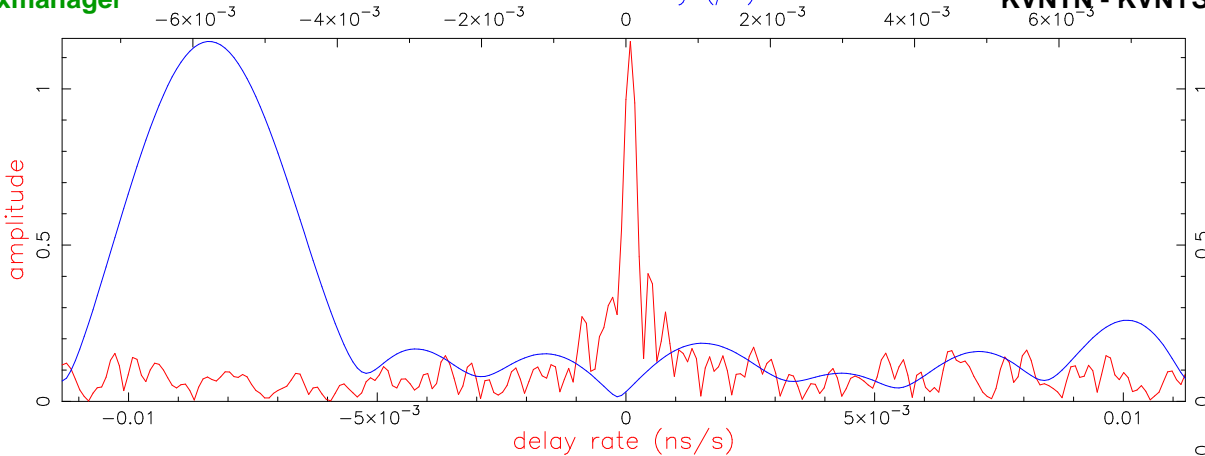
Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



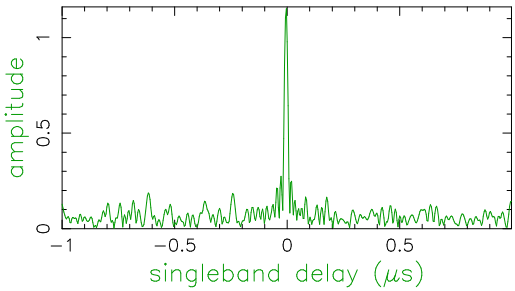
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	ManI PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.11556386812E+02				-5.11548427625E+02				Resid mbdelay (usec)	-7.95919E-03 +/- 5.1E-06
Sband delay (usec)	-5.11556430125E+02				-9.6879005E-01				Resid sbdelay (usec)	-8.00250E-03 +/- 4.1E-05
Phase delay (usec)	-5.11548423483E+02				-4.9999999E-08				Resid phdelay (usec)	4.14152E-06 +/- 1.7E-08
Delay rate (us/s)	-2.31209184487E-02				-2.31210323224E-02				Resid rate (us/s)	1.13874E-07 +/- 7.4E-10
Total phase (deg)			-71.6		-2.61218776055E-06				Resid phase (deg)	128.4 +/- 0.5
	RMS	Theor.	Amplitude	12.124 +/- 0.057					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	14.3	1.4	Search (256X32)	11.881					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	5.0	2.5	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	2.6	0.8	Inc. seg. avg.	12.496					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	2.6	1.3	Inc. frq. avg.	12.130					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

multiband delay ( $\mu$ s)

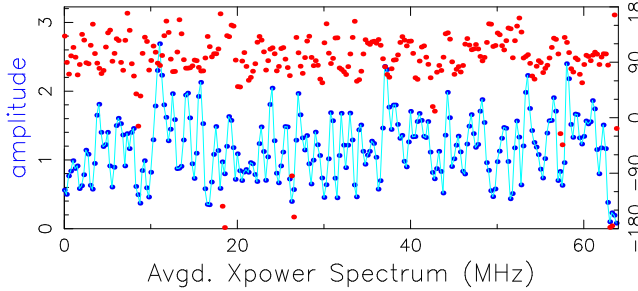
Fringe quality 9



SNR 20.3  
 Int time 40.852  
 Amp 1.161  
 Phase 109.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.005036  
 MBD -0.005790  
 Fringe rate (Hz)  
 0.008721  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

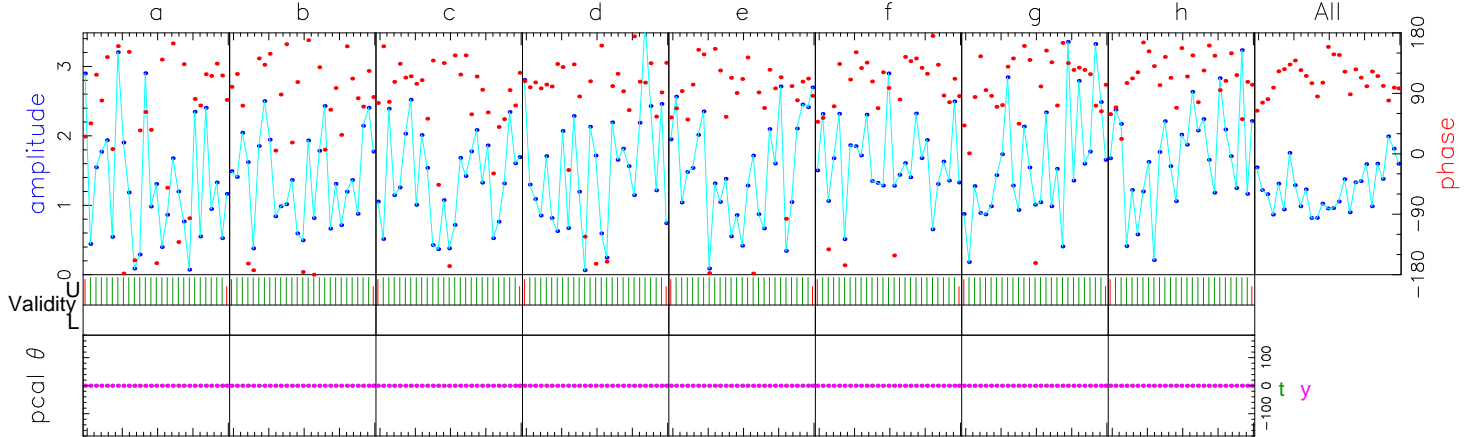


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114009  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)		-5.11554218074E+02		Apriori delay (usec)	-5.11548427625E+02		Resid mbdelay (usec)	-5.79045E-03		+/- 5.3E-05
Sband delay (usec)		-5.11553463625E+02		Apriori clock (usec)	-9.6879005E-01		Resid sbdelay (usec)	-5.03600E-03		+/- 4.2E-04
Phase delay (usec)		-5.11548424083E+02		Apriori clockrate (us/s)	-4.9999999E-08		Resid phdelay (usec)	3.54149E-06		+/- 1.8E-07
Delay rate (us/s)		-2.31209310780E-02		Apriori rate (us/s)	-2.31210323224E-02		Resid rate (us/s)	1.01244E-07		+/- 7.7E-09
Total phase (deg)			-90.2	Apriori accel (us/s/s)	-2.61218776055E-06		Resid phase (deg)	109.8		+/- 5.6

	RMS	Theor.	Amplitude	1.161 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	23.2	14.7	Search (256X32)	1.142	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	28.6	25.6	Interp.	0.000	Bits/sample: 2x2	mb window (us) -0.008 0.008
ph/frq (deg)	6.1	8.0	Inc. seg. avg.	1.209	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	17.8	13.9	Inc. frq. avg.	1.145	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

t: az 313.4 el 55.6 pa 105.4 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 207.127 -594.007 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/ty..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/ty.W.85.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

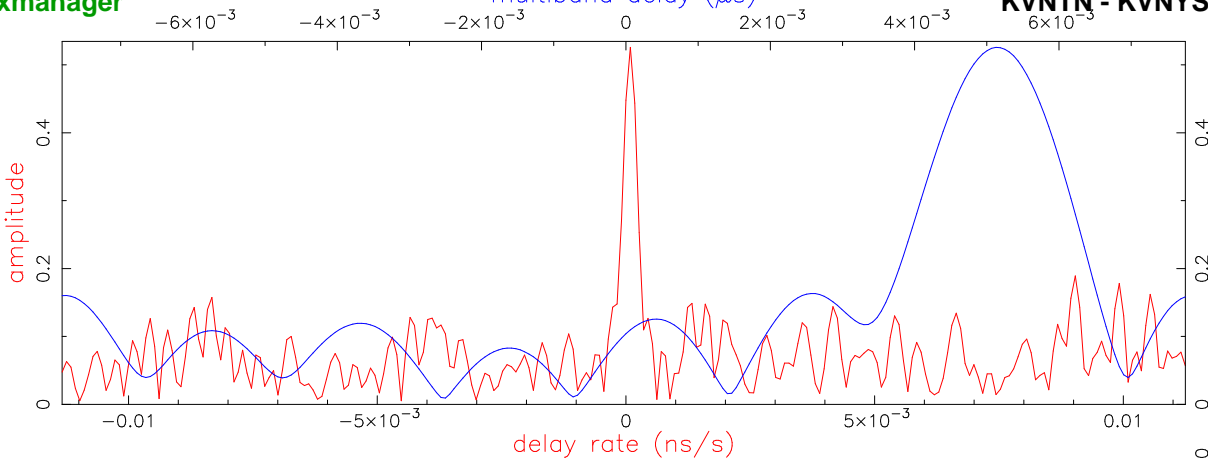
fxmanager

NRAO150.1WZMQH, No0029, ty

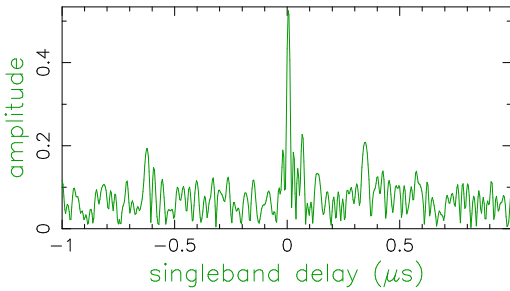
KVNTN - KVNYS, fgroup W, pol RL

multiband delay ( $\mu$ s)

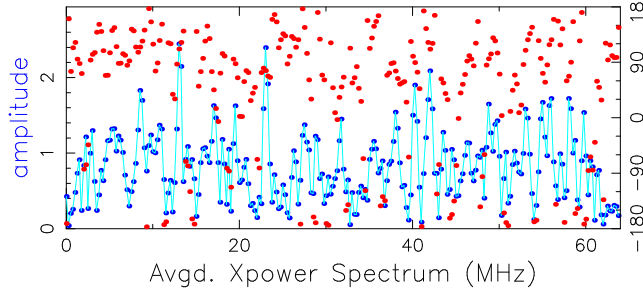
Fringe quality 9



SNR 9.3  
 Int time 40.852  
 Amp 0.535  
 Phase 110.7  
 PFD 4.6e-13  
 Delays (us)  
 SBD 0.005495  
 MBD 0.005134  
 Fringe rate (Hz) 0.010236  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512

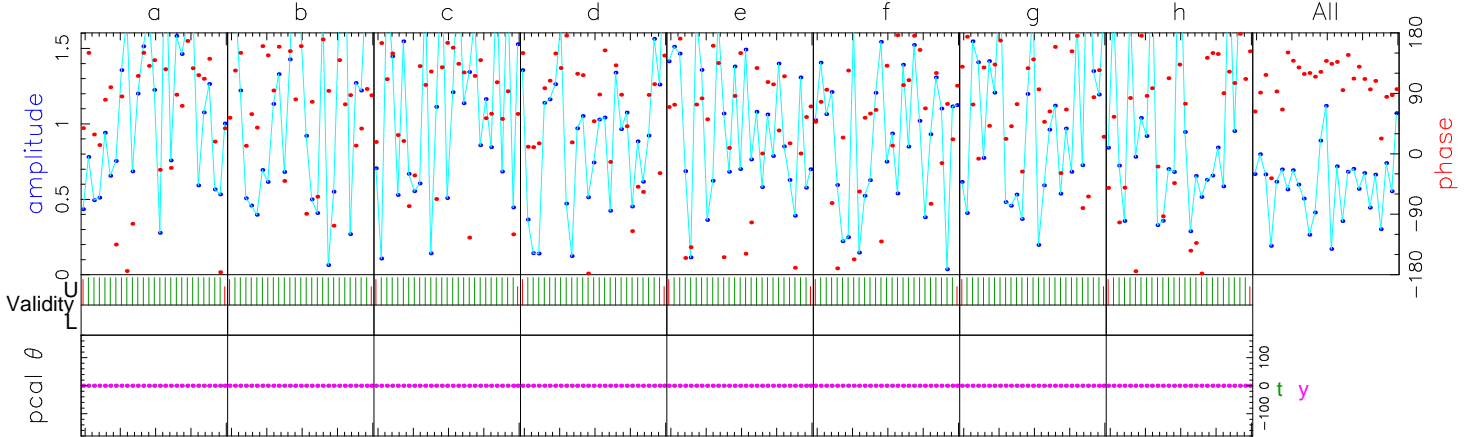


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114010  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	120.7	105.1	108.0	110.3	99.9	105.8	100.5	125.8	Phase	110.7		
	0.7	0.7	0.6	0.5	0.5	0.3	0.4	0.6	Ampl.	0.5		
	257.9	258.3	258.9	79.7	73.8	161.6	154.5	258.3	Sbd box	258.4		
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used			
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
y	1000	1000	1000	1000	1000	1000	1000	1000				
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
									Tracks			
Group delay (usec)(sbd)	-5.11543293918E+02		Apriori delay (usec)		-5.11548427625E+02		Resid mbdelay (usec)		5.13371E-03	+/- 1.2E-04		
Sband delay (usec)	-5.11542933125E+02		Apriori clock (usec)		-9.6879005E-01		Resid sbdelay (usec)		5.49450E-03	+/- 9.2E-04		
Phase delay (usec)	-5.11548424056E+02		Apriori clockrate (us/s)		-4.9999999E-08		Resid phdelay (usec)		3.56908E-06	+/- 4.0E-07		
Delay rate (us/s)	-2.31209134888E-02		Apriori rate (us/s)		-2.31210323224E-02		Resid rate (us/s)		1.18834E-07	+/- 1.7E-08		
Total phase (deg)			Apriori accel (us/s/s)		-2.61218776055E-06		Resid phase (deg)		110.7	+/- 12.3		
	RMS	Theor.	Amplitude	0.535 +/- 0.057		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	40.1	31.9	Search (256X32)	0.507		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	43.2	55.6	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	10.1	17.3	Inc. seg. avg.	0.519		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011	0.011	
amp/frq (%)	25.0	30.3	Inc. frq. avg.	0.509		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

Mk4/DiFX fourfit 3.21 rev 2937

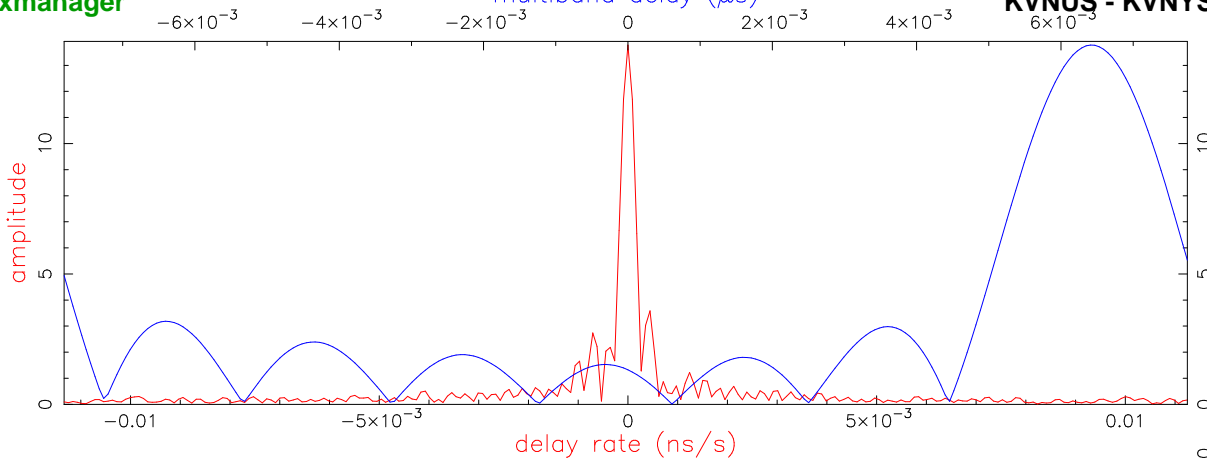
fxmanager

NRAO150.1WZMQH, No0029, uy

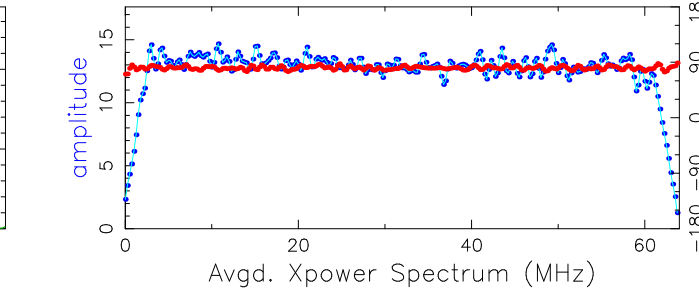
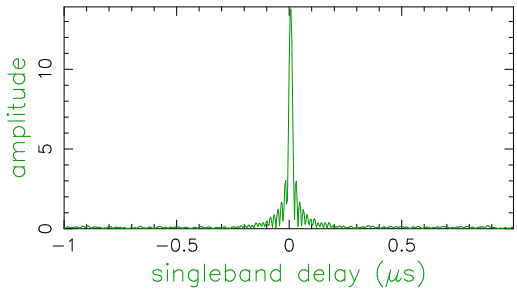
KVNU\$ - KVNY\$, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 9

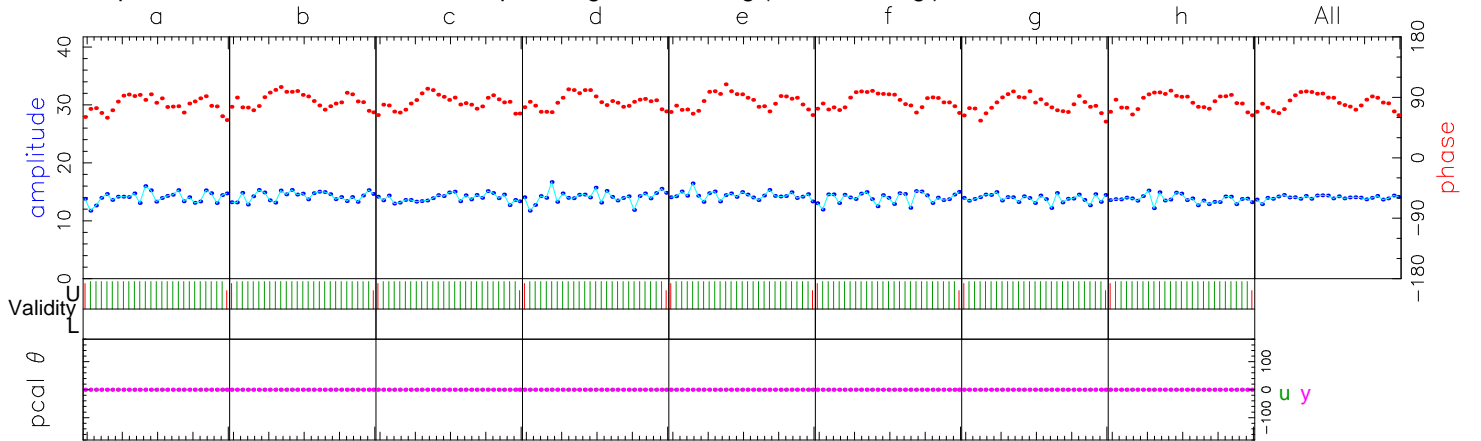


SNR 243.3  
 Int time 40.852  
 Amp 13.919  
 Phase 82.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.006546  
 MBD 0.006422  
 Fringe rate (Hz)  
 0.001863  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114012  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-5.45895781031E+02	Apriori delay (usec)	-5.45902203343E+02	Resid mbdelay (usec)	6.42231E-03	+/-	4.5E-06
Sband delay (usec)	-5.45895657593E+02	Apriori clock (usec)	1.3993299E+01	Resid sbdelay (usec)	6.54575E-03	+/-	3.5E-05
Phase delay (usec)	-5.45902200680E+02	Apriori clockrate (us/s)	1.1270000E-06	Resid phdelay (usec)	2.66311E-06	+/-	1.5E-08
Delay rate (us/s)	-3.70207507019E-02	Apriori rate (us/s)	-3.70207723327E-02	Resid rate (us/s)	2.16308E-08	+/-	6.4E-10
Total phase (deg)	-204.0	Apriori accel (us/s/s)	4.95291990318E-07	Resid phase (deg)	82.6	+/-	0.5

ph/seg (deg)	10.3	RMS	10.3	Theor.	1.2	Amplitude	13.919 +/- 0.057	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	2.4	Search (256X32)	13.612	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	2.7	Inc. seg. avg.	14.005	Inc. frq. avg.	13.791	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	1.7	Inc. frq. avg.	13.791	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite
u: az 310.3 el 55.4 pa 98.7		y: az 308.3 el 58.1 pa 97.9		u,v (fr/asec)	338.302 -112.742	ion window (TEC)	0.00	0.00			simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/uy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uy.W.105.1WZMQH



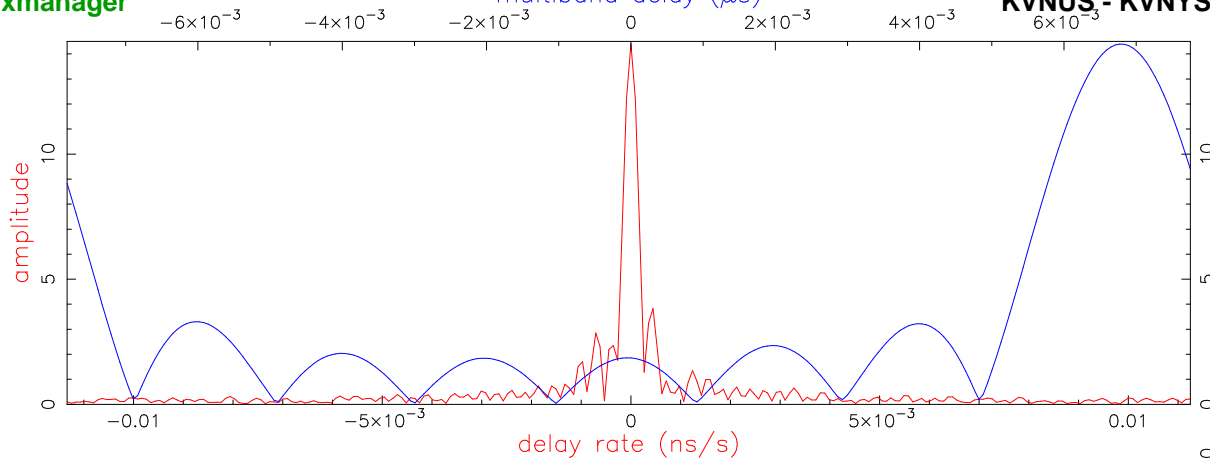
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uy

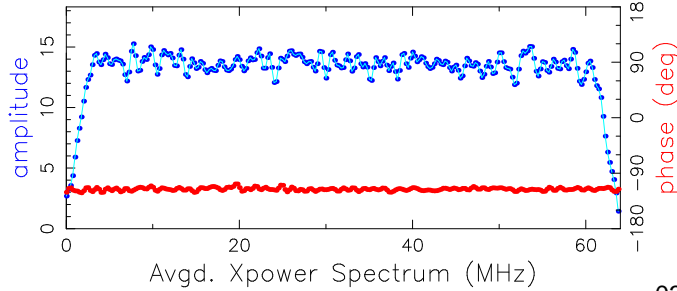
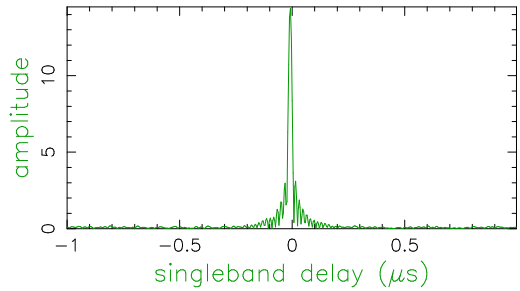
KVNU5 - KVNY5, fgroup W, pol RR

multiband delay ( $\mu$ s)



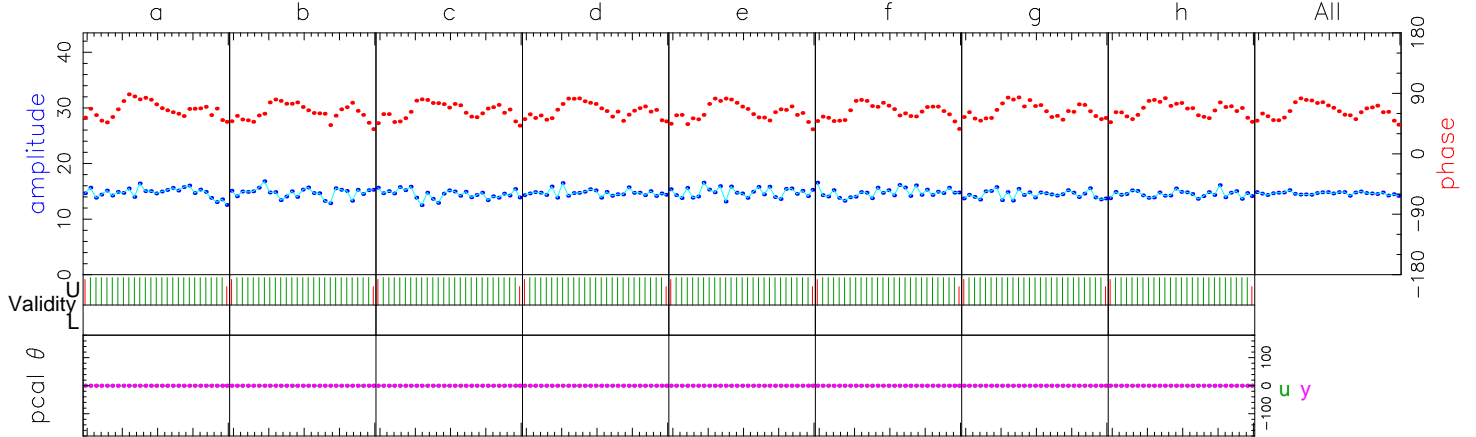
Fringe quality 9

SNR 253.5  
 Int time 40.852  
 Amp 14.502  
 Phase 63.6  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.008886  
 MBD 0.006791  
 Fringe rate (Hz)  
 0.001857  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114014  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	Ampl.	14.4
u	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	254.7
y	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-5.45911036937E+02				-5.45902203343E+02				Resid mbdelay (usec)	6.79141E-03 +/- 4.3E-06
Sband delay (usec)	-5.45911089093E+02				1.3993299E+01				Resid sbdelay (usec)	-8.88575E-03 +/- 3.4E-05
Phase delay (usec)	-5.45902201292E+02				1.1270000E-06				Resid phdelay (usec)	2.05157E-06 +/- 1.5E-08
Delay rate (us/s)	-3.70207507756E-02				-3.70207723327E-02				Resid rate (us/s)	2.15572E-08 +/- 6.2E-10
Total phase (deg)		-222.9			4.95291990318E-07				Resid phase (deg)	63.6 +/- 0.5
	RMS	Theor.	Amplitude	14.502 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	10.6	1.2	Search (256X32)	14.255	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	1.9	2.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	1.7	0.6	Inc. seg. avg.	14.643	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	1.1	1.1	Inc. frq. avg.	14.403	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 310.3 el 55.4 pa 98.7 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 338.302 -112.742 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/uy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uy.W.125.1WZMQH

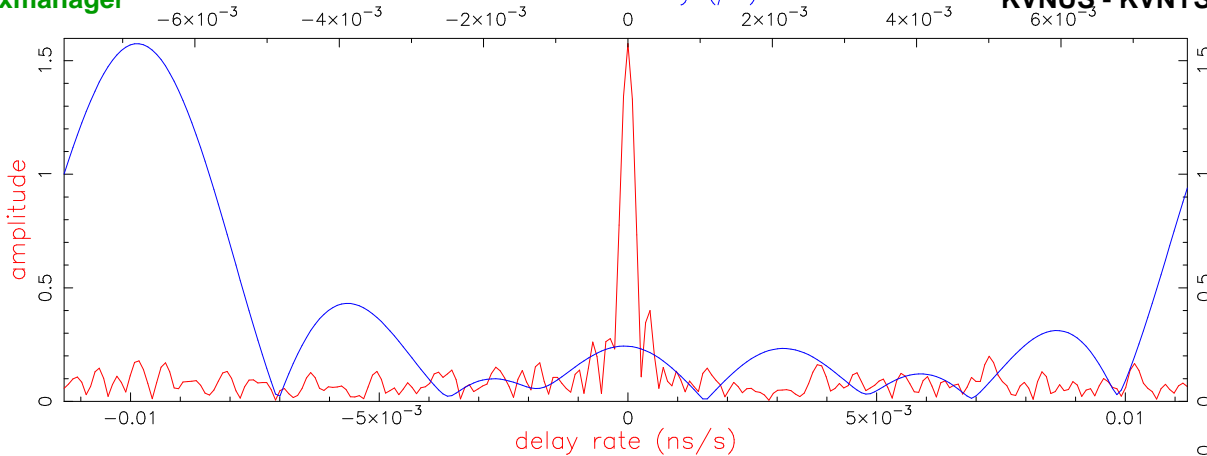
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, uy

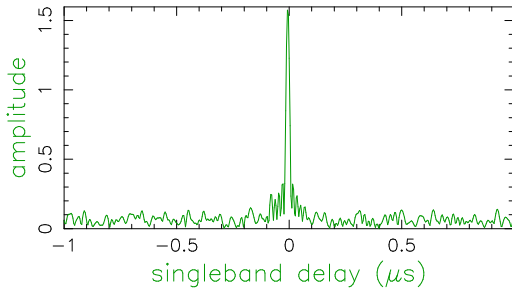
KVNU5 - KVNY5, fgroup W, pol LR

multiband delay ( $\mu$ s)

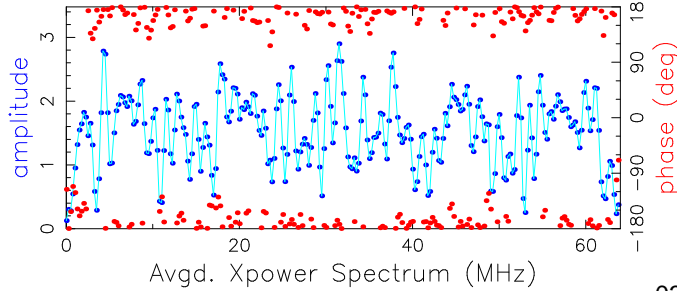


Fringe quality 9

SNR 27.9  
 Int time 40.852  
 Amp 1.598  
 Phase -174.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.006292  
 MBD -0.006806  
 Fringe rate (Hz)  
 0.002298  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

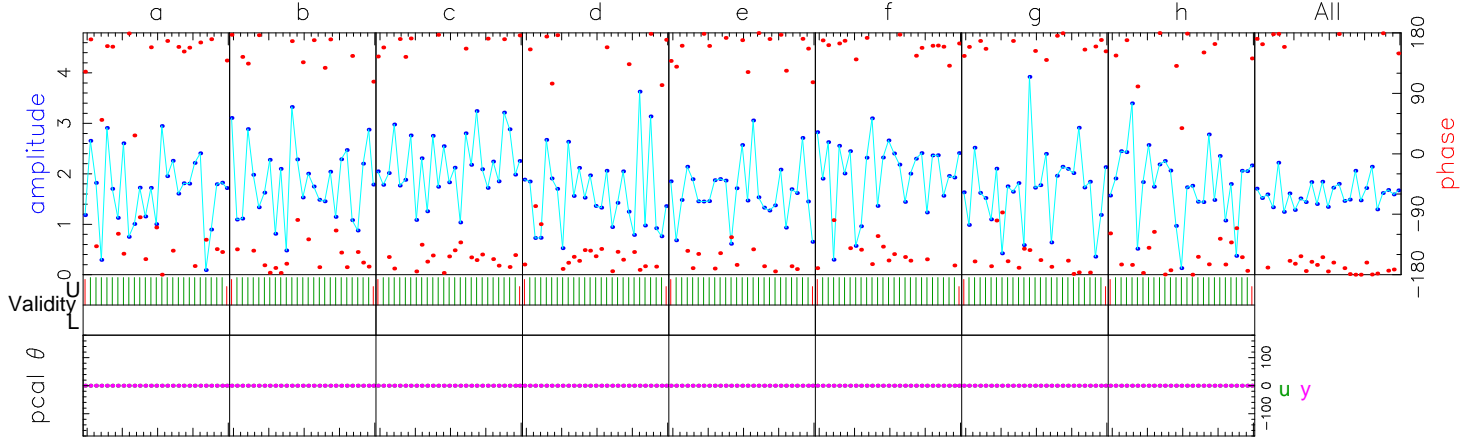


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114014  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

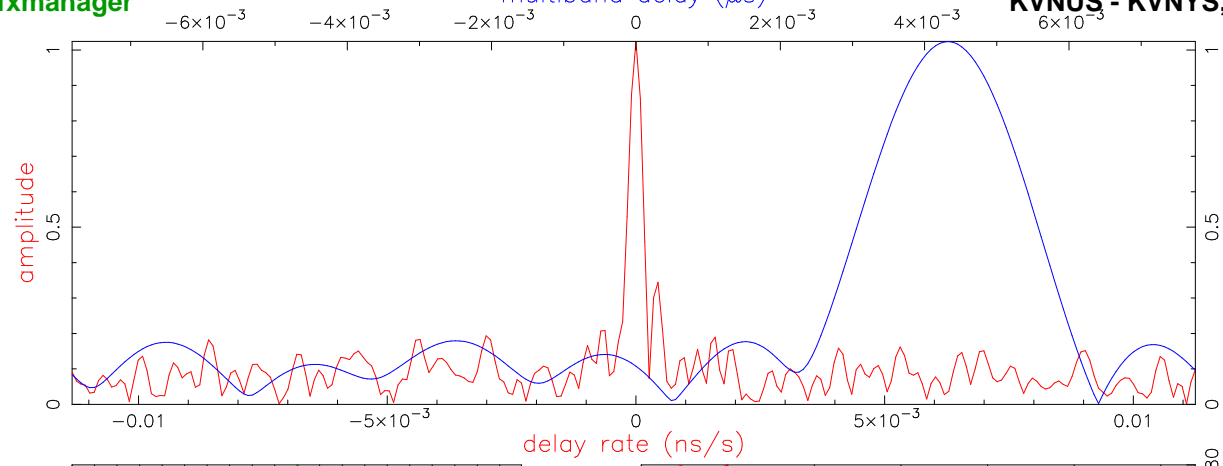
Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



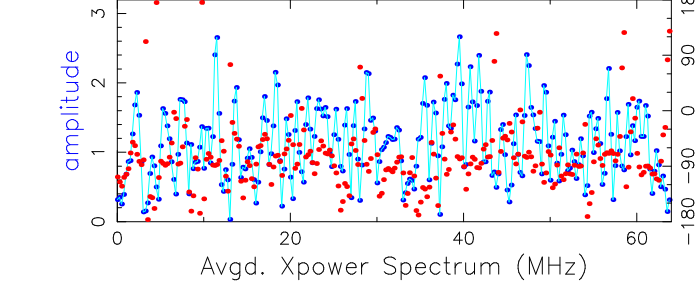
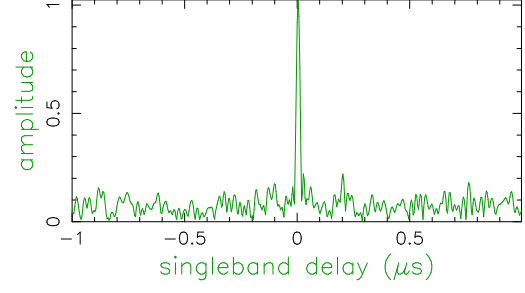
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-176.1	-175.6	-171.1	-172.1	-179.6	-178.1	-176.7	-169.2	Phase	-174.7
	1.3	1.5	2.0	1.4	1.5	1.8	1.5	1.6	Ampl.	1.6
	255.6	255.6	255.0	255.7	255.4	255.3	255.6	255.3	Sbd box	255.4
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.45909009468E+02		Apriori delay (usec)		-5.45902203343E+02		Resid mbdelay (usec)		-6.80612E-03	+/- 3.9E-05
Sband delay (usec)	-5.45908495343E+02		Apriori clock (usec)		1.3993299E+01		Resid sbdelay (usec)		-6.29200E-03	+/- 3.1E-04
Phase delay (usec)	-5.45902208977E+02		Apriori clockrate (us/s)		1.1270000E-06		Resid phdelay (usec)		-5.63399E-06	+/- 1.3E-07
Delay rate (us/s)	-3.70207456570E-02		Apriori rate (us/s)		-3.70207723327E-02		Resid rate (us/s)		2.66758E-08	+/- 5.6E-09
Total phase (deg)			Apriori accel (us/s/s)		4.95291990318E-07		Resid phase (deg)		-174.7	+/- 4.1

ph/seg (deg) 13.0 10.7 Search (256X32) 1.553 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 15.7 18.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 3.9 5.8 Inc. seg. avg. 1.588 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 13.2 10.1 Inc. frq. avg. 1.570 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 u: az 310.3 el 55.4 pa 98.7 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 338.302 -112.742 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/uy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uy.W.131.1WZMQH

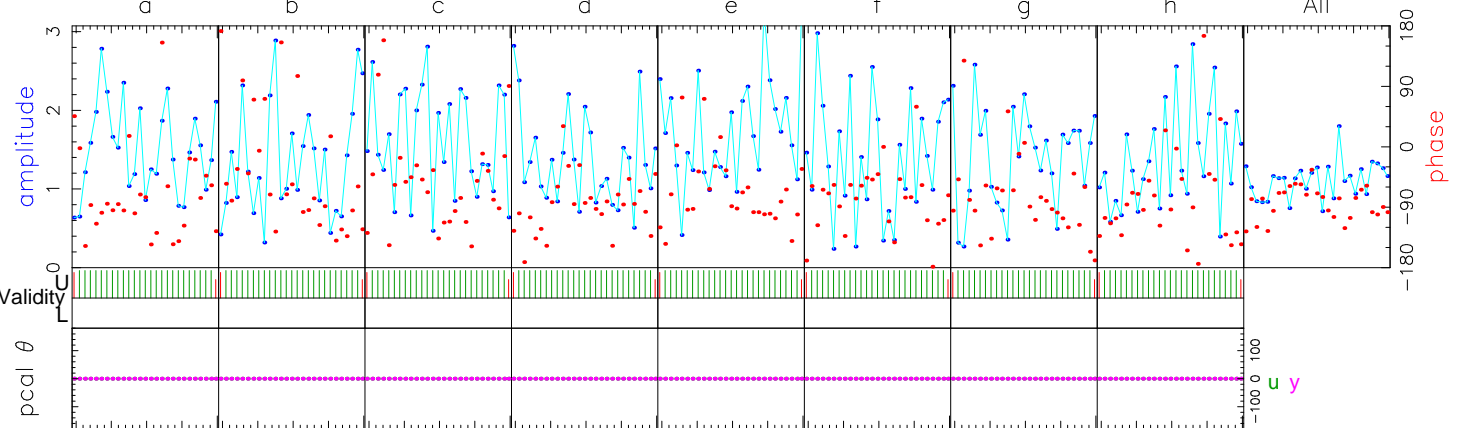
multiband delay ( $\mu$ s)



Fringe quality 9  
SNR 17.9  
Int time 40.852  
Amp 1.024  
Phase -83.2  
PFD 0.0e+00  
Delays (us)  
SBD 0.004208  
MBD 0.004322  
Fringe rate (Hz) 0.001272  
Ion TEC 0.000  
Ref freq (MHz) 86140.0000  
AP (sec) 0.512  
Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 080618.88  
Stop 080659.84  
FRT 080330.00  
Corr/FF/build  
2021:302:193655  
2021:303:114016  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"



Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-89.0	-87.3	-72.3	-88.1	-77.5	-79.7	-87.4	-87.6	Phase	-83.2
	1.1	0.8	1.0	1.1	1.3	1.1	1.0	0.9	Ampl.	1.0
	258.1	257.5	258.1	258.0	258.2	258.5	258.4	257.9	Sbd box	258.1
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-5.45897880968E+02		Apriori delay (usec)		-5.45902203343E+02		Resid mbdelay (usec)		4.32238E-03	+/- 6.1E-05
Sband delay (usec)	-5.45897995343E+02		Apriori clock (usec)		1.3993299E+01		Resid sbdelay (usec)		4.20800E-03	+/- 4.8E-04
Phase delay (usec)	-5.45902206027E+02		Apriori clockrate (us/s)		1.1270000E-06		Resid phdelay (usec)		-2.68333E-06	+/- 2.1E-07
Delay rate (us/s)	-3.70207575664E-02		Apriori rate (us/s)		-3.70207723327E-02		Resid rate (us/s)		1.47663E-08	+/- 8.7E-09
Total phase (deg)			Apriori accel (us/s/s)		4.95291990318E-07		Resid phase (deg)		-83.2	+/- 6.4

ph/seg (deg) 23.5 16.6 Search (256X32) 1.017 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 23.8 29.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 6.8 9.1 Inc. seg. avg. 1.067 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 14.5 15.8 Inc. frq. avg. 1.017 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
u: az 310.3 el 55.4 pa 98.7 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 338.302 -112.742 simultaneous interpolator  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/uy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/uy.W.144.1WZMQH

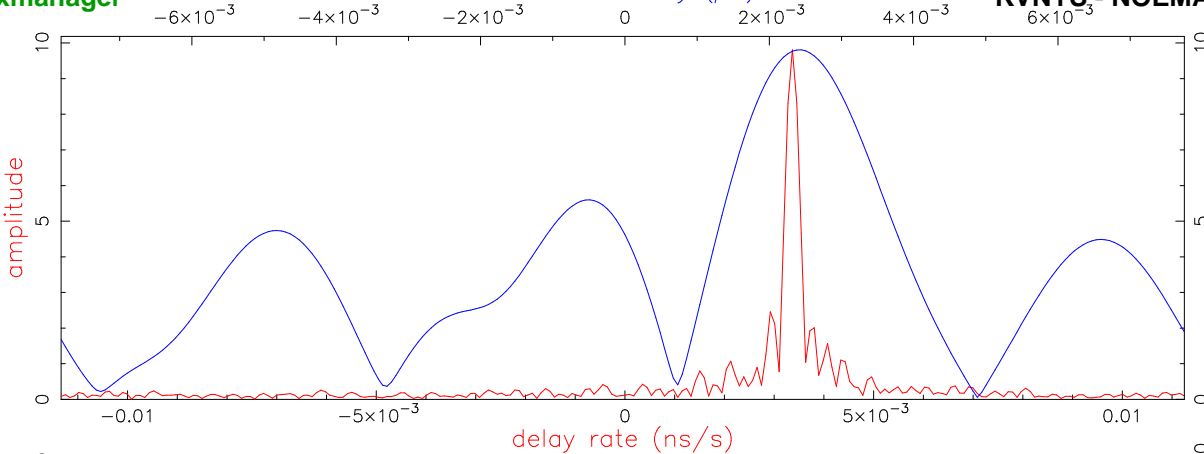
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yN

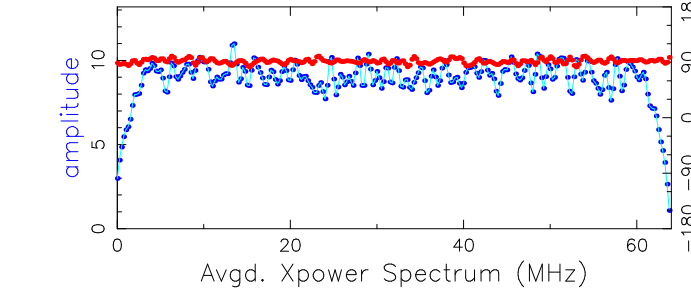
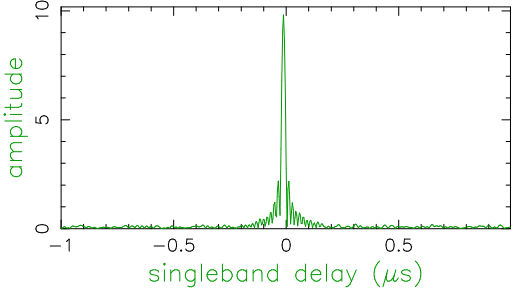
KVNSY- NOEMA, fgroup W, pol LL

multiband delay ( $\mu$ s)



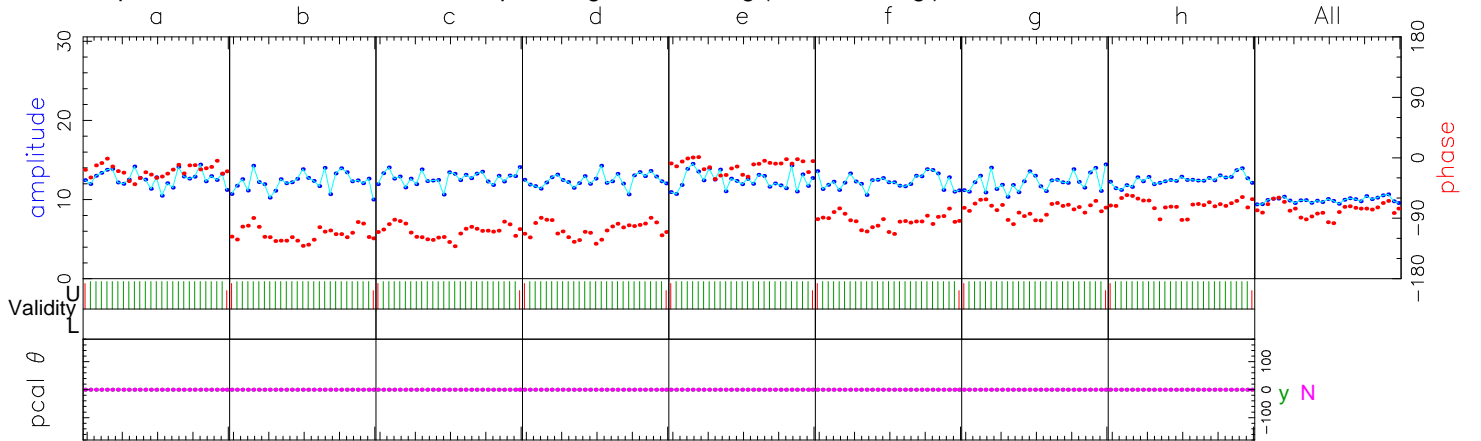
Fringe quality 6

SNR 171.8  
 Int time 40.852  
 Amp 10.186  
 Phase -77.1  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.012242  
 MBD 0.002418  
 Fringe rate (Hz)  
 0.287521  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114013  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-19.2	-113.7	-109.7	-106.8	-11.7	-93.7	-76.7	-69.9	Phase	-77.1
	13.0	12.5	13.0	12.7	12.8	12.5	12.5	12.7	Ampl.	12.7
	253.8	253.6	254.0	253.7	253.9	254.0	253.9	253.9	Sbd box	253.9
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.52505346519E+03	Apriori delay (usec)	4.52506667232E+03	Resid mbdelay (usec)	2.41787E-03	+/-	6.3E-06
Sband delay (usec)	4.52505443082E+03	Apriori clock (usec)	1.3949750E+01	Resid sbdelay (usec)	-1.22415E-02	+/-	5.0E-05
Phase delay (usec)	4.52506666983E+03	Apriori clockrate (us/s)	4.3890000E-06	Resid phdelay (usec)	-2.48744E-06	+/-	2.2E-08
Delay rate (us/s)	-1.20215834936E+00	Apriori rate (us/s)	-1.20216168720E+00	Resid rate (us/s)	3.33784E-06	+/-	9.1E-10
Total phase (deg)	-22.0	Apriori accel (us/s/s)	-3.21640814501E-05	Resid phase (deg)	-77.1	+/-	0.7

ph/seg (deg)	9.6	Theor.	1.7	Amplitude	10.186 +/- 0.059	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	3.6		3.0	Search (256X32)	9.580	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	43.3		0.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	24.9		1.6	Inc. seg. avg.	10.308	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	12.711	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00	
						nlags: 256	t_cohere infinite		

y: az 308.3 el 58.1 pa 97.9 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 10893.699 -3742.522 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yN.W.113.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

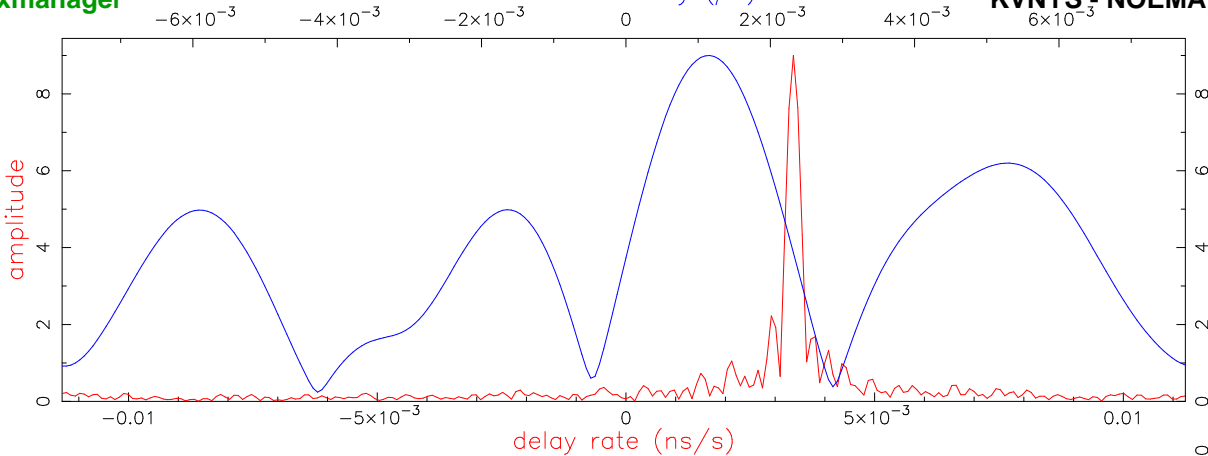
fxmanager

NRAO150.1WZMQH, No0029, yN

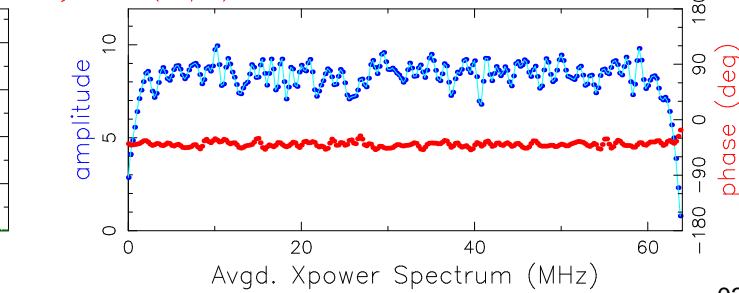
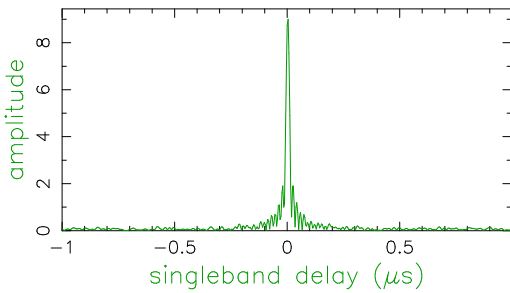
KVNYS - NOEMA, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 6

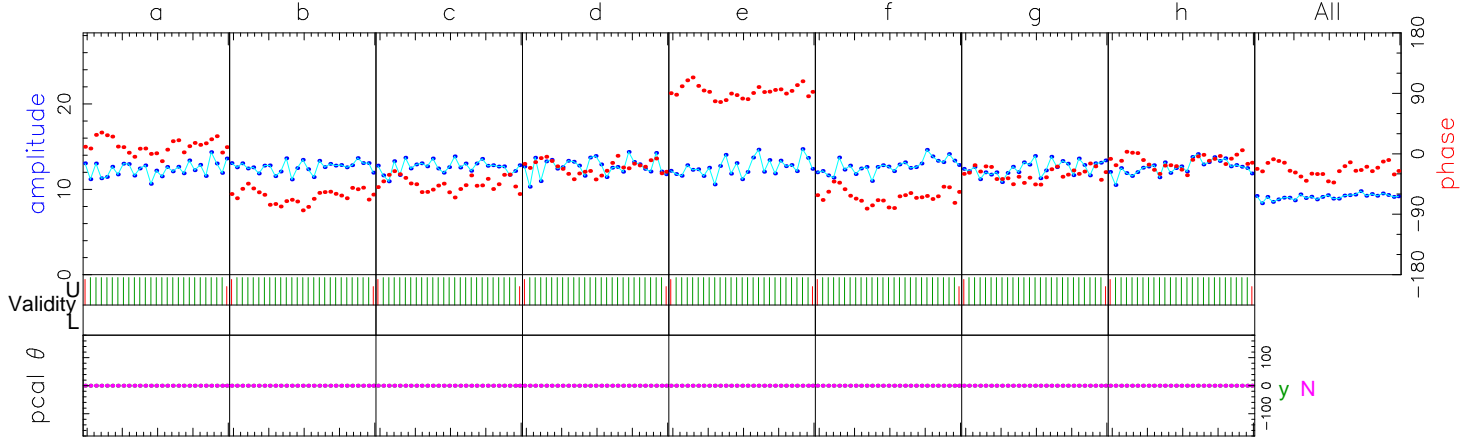


SNR 159.2  
Int time 40.852  
Amp 9.443  
Phase -23.8  
PFD 0.0e+00  
Delays (us)  
SBD 0.002529  
MBD 0.001141  
Fringe rate (Hz)  
0.287681  
Ion TEC 0.000  
Ref freq (MHz)  
86140.0000  
AP (sec) 0.512



Exp. c211c  
Exper # 16383  
Yr:day 2021:116  
Start 080618.88  
Stop 080659.84  
FRT 080330.00  
Corr/FF/build  
2021:302:193655  
2021:303:114013  
2021:252:122852  
RA & Dec (J2000)  
03h59m29.747267s  
+50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	11.9	-63.0	-45.1	-19.9	92.8	-63.6	-30.6	-11.0		Phase	-23.8
	12.6	12.9	12.9	13.0	12.9	13.0	12.8	12.9		Ampl.	12.9
	257.6	257.7	257.8	257.6	257.8	257.7	257.7	257.7		Sbd box	257.6
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks	
										Chan ids	
										Tracks	
Group delay (usec)(sbd)	4.52506781341E+03		Apriori delay (usec)		4.52506667232E+03		Resid mbdelay (usec)		1.14109E-03	+/-	6.8E-06
Sband delay (usec)	4.52506920107E+03		Apriori clock (usec)		1.3949750E+01		Resid sbdelay (usec)		2.52875E-03	+/-	5.4E-05
Phase delay (usec)	4.52506667155E+03		Apriori clockrate (us/s)		4.3890000E-06		Resid phdelay (usec)		-7.68321E-07	+/-	2.3E-08
Delay rate (us/s)	-1.20215834752E+00		Apriori rate (us/s)		-1.20216168720E+00		Resid rate (us/s)		3.33969E-06	+/-	9.8E-10
Total phase (deg)			Apriori accel (us/s/s)		-3.21640814501E-05		Resid phase (deg)		-23.8	+/-	0.7

ph/seg (deg) 9.5 1.9 Theor. Amplitude 9.443 +/- 0.059 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
amp/seg (%) 3.3 3.3 Interp. 8.559 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
ph/frq (deg) 55.8 1.0 Inc. (256X32) 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
amp/frq (%) 36.2 1.8 Inc. seg. avg. 9.452 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
y: az 308.3 el 58.1 pa 97.9 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 10893.699 -3742.522 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yN.W.118.1WZMQH simultaneous interpolator



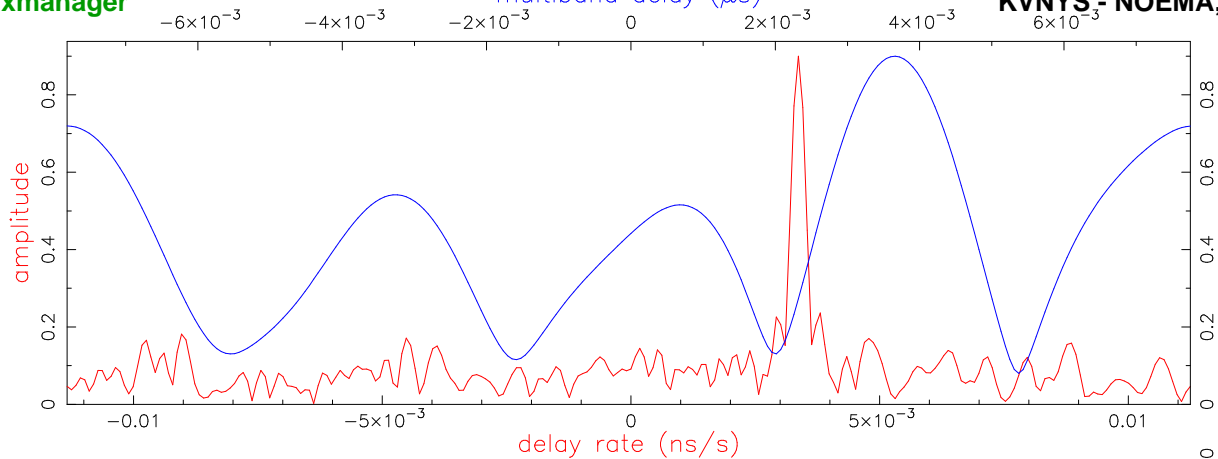
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yN

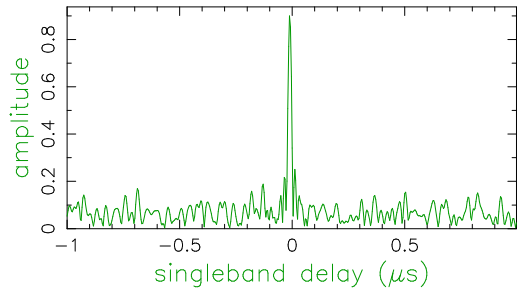
KVNYS- NOEMA, fgroup W, pol LR

multiband delay ( $\mu$ s)

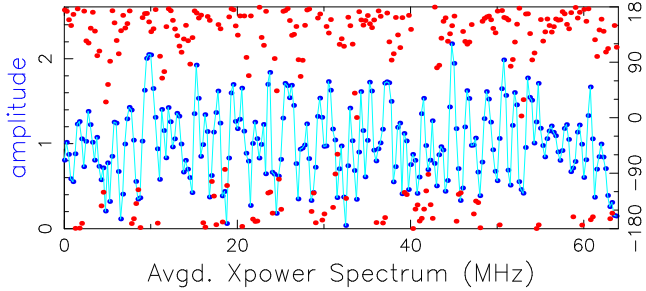


Fringe quality 7

SNR 15.8  
 Int time 40.852  
 Amp 0.938  
 Phase -5.8  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.010789  
 MBD 0.003659  
 Fringe rate (Hz)  
 0.287928  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

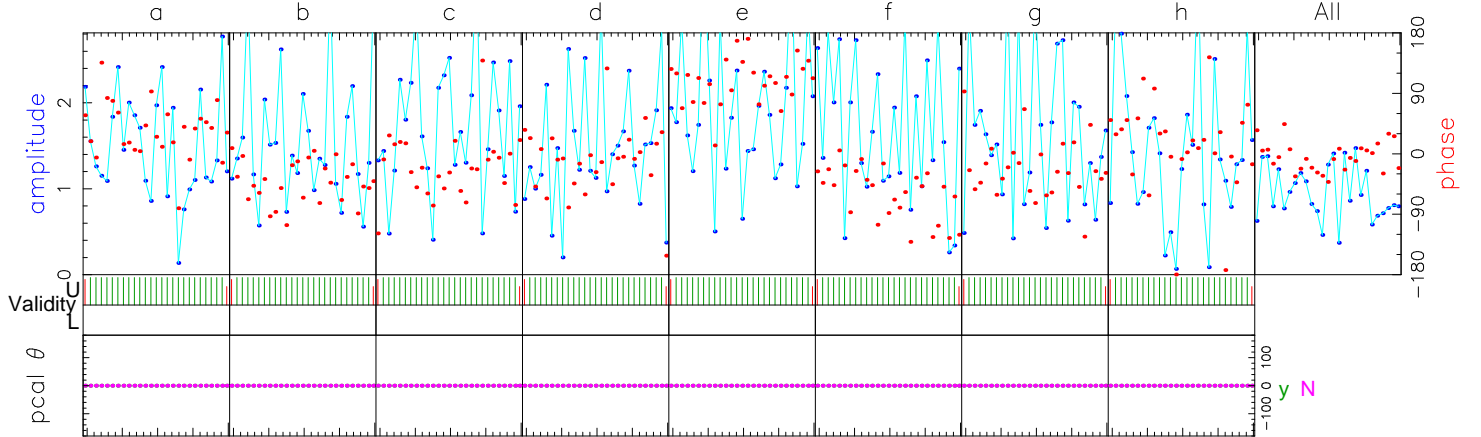


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114015  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	33.7	-43.0	-22.2	-12.7	105.9	-53.6	-25.8	23.8	Phase	-5.8
	1.3	1.4	1.5	1.2	1.7	1.4	1.4	1.1	Ampl.	1.4
	253.8	254.6	254.3	254.6	254.4	254.2	254.2	254.2	Sbd box	254.2
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.52505470641E+03		Apriori delay (usec)		4.52506667232E+03		Resid mbdelay (usec)		3.65909E-03	+/- 6.9E-05
Sband delay (usec)	4.52505588332E+03		Apriori clock (usec)		1.3949750E+01		Resid sbdelay (usec)		-1.07890E-02	+/- 5.4E-04
Phase delay (usec)	4.52506667213E+03		Apriori clockrate (us/s)		4.3890000E-06		Resid phdelay (usec)		-1.88177E-07	+/- 2.3E-07
Delay rate (us/s)	-1.20215834465E+00		Apriori rate (us/s)		-1.20216168720E+00		Resid rate (us/s)		3.34256E-06	+/- 9.9E-09
Total phase (deg)			49.3		Apriori accel (us/s/s)		-3.21640814501E-05		Resid phase (deg)	-5.8 +/- 7.2

ph/seg (deg) 21.8 18.8 Search (256X32) 0.938 +/- 0.059 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 34.6 32.9 Interp. 0.875 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 56.7 10.2 Inc. seg. avg. 0.943 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 52.8 17.9 Inc. frq. avg. 1.378 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 y: az 308.3 el 58.1 pa 97.9 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 10893.699 -3742.522 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yN..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yN.W.133.1WZMQH

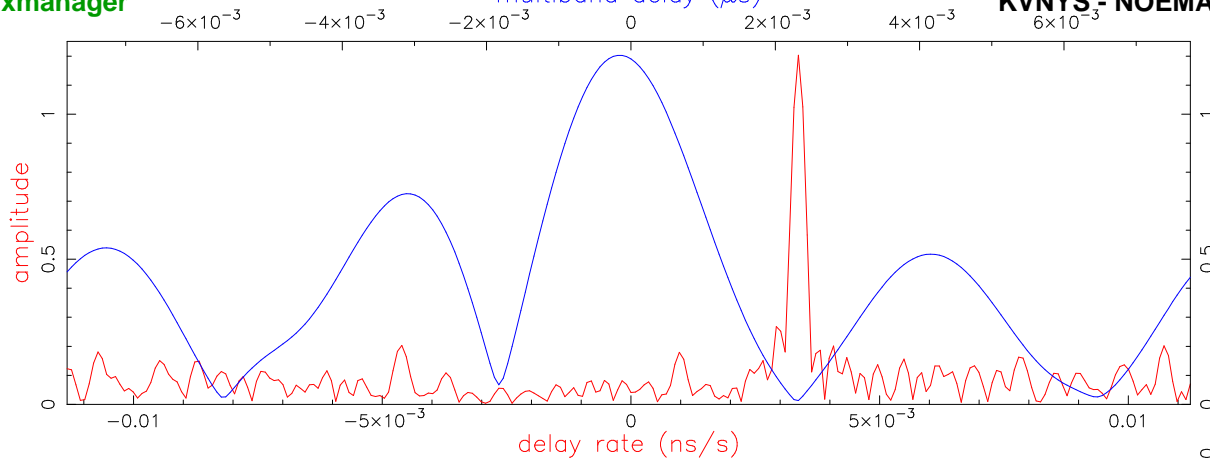
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yN

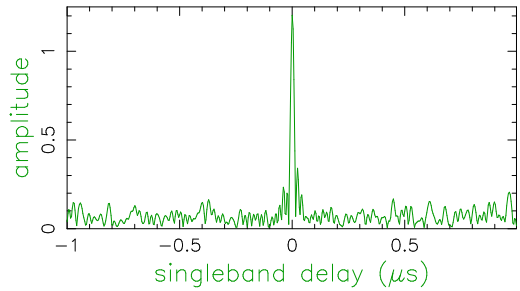
KVNSYS- NOEMA, fgroup W, pol RL

multiband delay ( $\mu$ s)

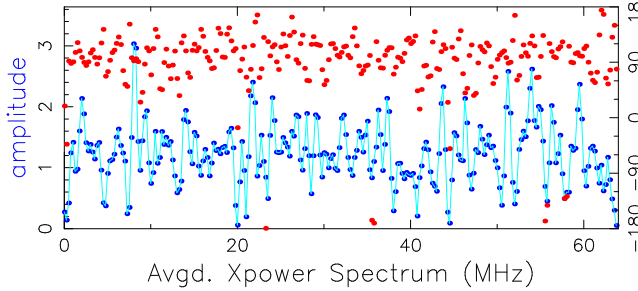


Fringe quality 8

SNR 21.1  
 Int time 40.852  
 Amp 1.251  
 Phase 110.5  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.000683  
 MBD -0.000152  
 Fringe rate (Hz)  
 0.287286  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

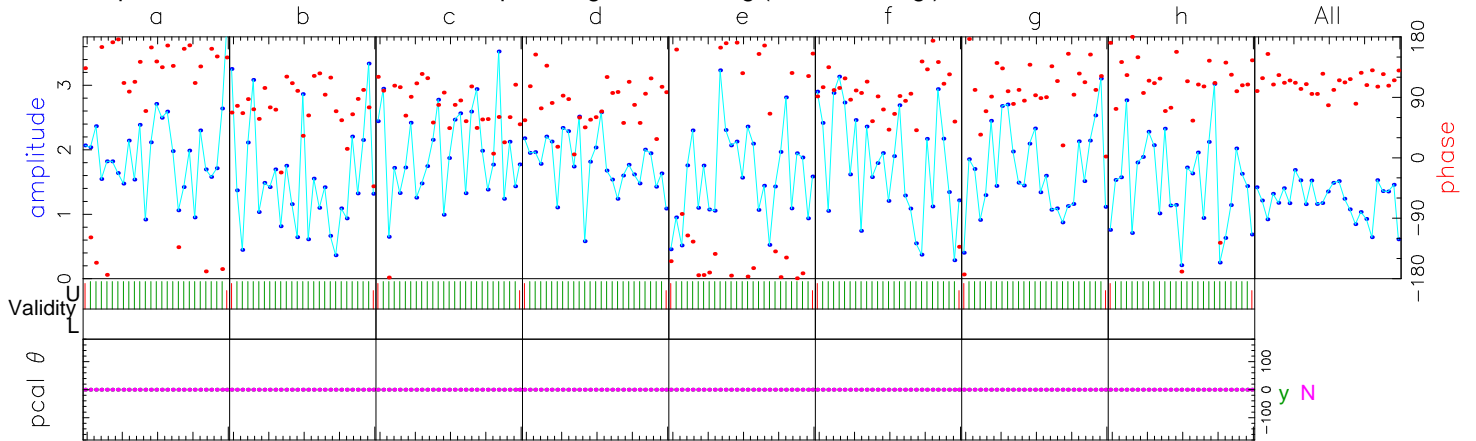


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114016  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
N	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

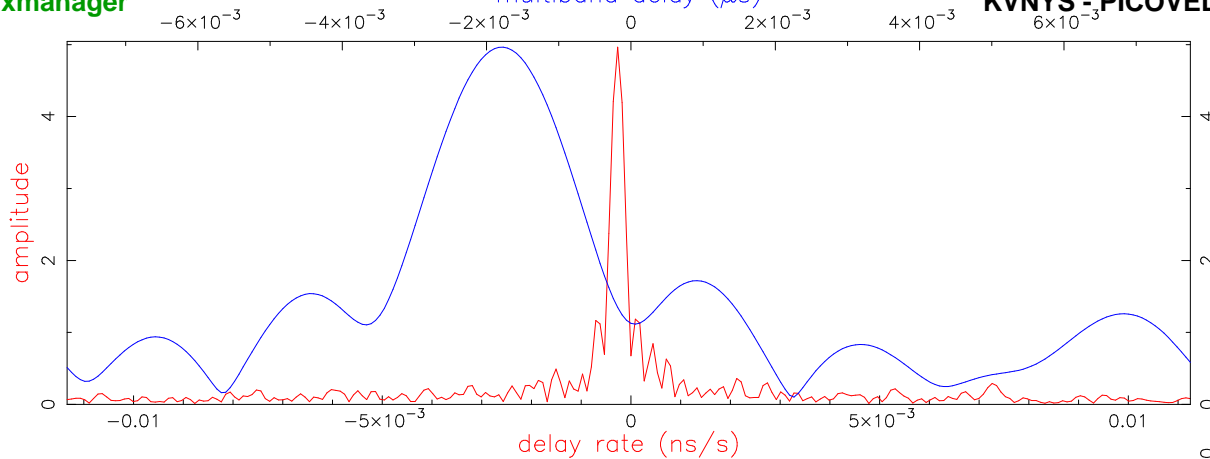
Group delay (usec)(sbd)	4.52506652078E+03	Apriori delay (usec)	4.52506667232E+03	Resid mbdelay (usec)	-1.51534E-04	+/-	5.1E-05
Sband delay (usec)	4.52506735482E+03	Apriori clock (usec)	1.3949750E+01	Resid sbdelay (usec)	6.82500E-04	+/-	4.1E-04
Phase delay (usec)	4.52506667588E+03	Apriori clockrate (us/s)	4.3890000E-06	Resid phdelay (usec)	3.56300E-06	+/-	1.8E-07
Delay rate (us/s)	-1.20215835210E+00	Apriori rate (us/s)	-1.20216168720E+00	Resid rate (us/s)	3.33510E-06	+/-	7.4E-09
Total phase (deg)	165.7	Apriori accel (us/s/s)	-3.21640814501E-05	Resid phase (deg)	110.5	+/-	5.4

ph/seg (deg)	15.4	Theor.	14.1	Amplitude	1.251 +/- 0.059	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	21.7		24.6	Search (256X32)	1.171	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	42.0		7.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	24.5		13.4	Inc. seg. avg.	1.248	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
				Inc. frq. avg.	1.513	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

y: az 308.3 el 58.1 pa 97.9 N: az 52.5 el 38.7 pa -64.5 u,v (fr/asec) 10893.699 -3742.522 simultaneous interpolator

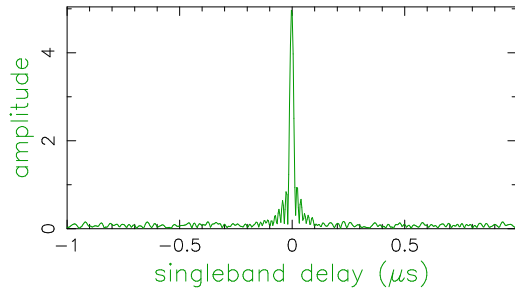
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yN.1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yN.W.146.1WZMQH

multiband delay ( $\mu$ s)

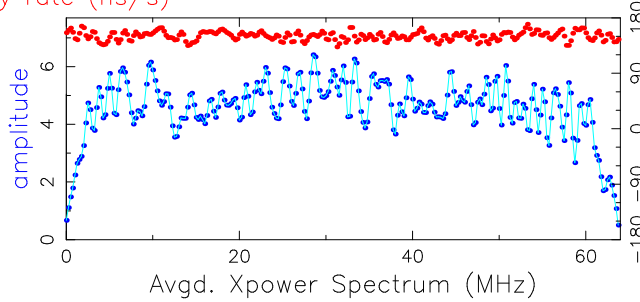


Fringe quality 6

SNR 88.2  
 Int time 40.852  
 Amp 5.045  
 Phase 144.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.002277  
 MBD -0.001776  
 Fringe rate (Hz)  
 -0.019840  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

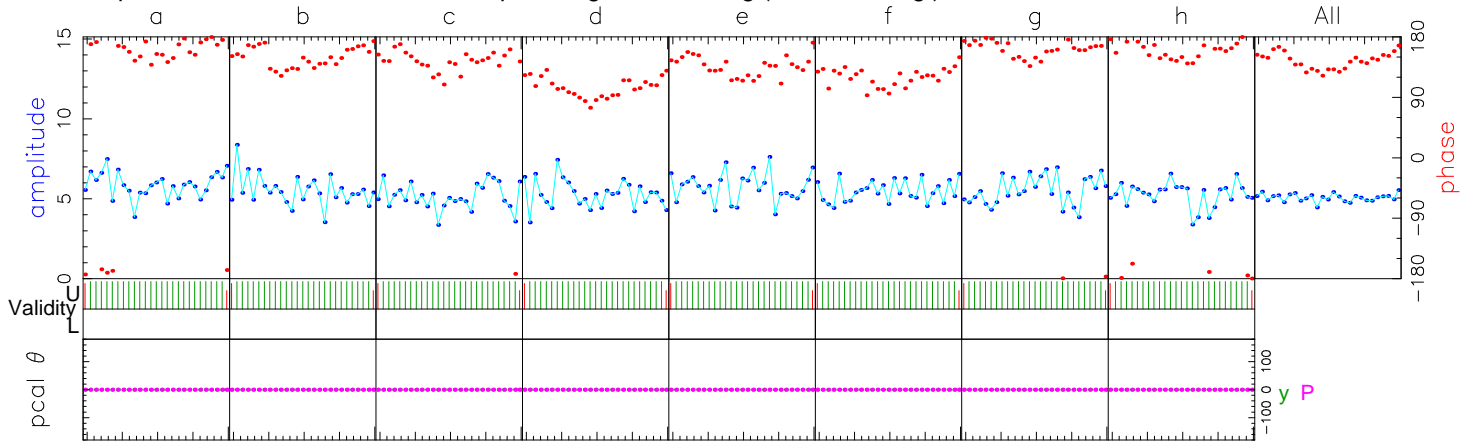


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114013  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	167.7	149.7	145.6	104.6	136.3	119.5	162.1	164.1	Phase	144.2
	5.6	5.3	5.0	5.2	5.6	5.3	5.4	5.1	Ampl.	5.3
	256.3	256.3	256.0	256.2	256.5	256.5	256.7	256.7	Sbd box	256.4
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	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)	7.66209946777E+03		Apriori delay (usec)		7.66210124333E+03		Resid mbdelay (usec)		-1.77556E-03	+/- 1.2E-05
Sband delay (usec)	7.66209896658E+03		Apriori clock (usec)		1.7434864E+00		Resid sbdelay (usec)		-2.27675E-03	+/- 9.8E-05
Phase delay (usec)	7.66210124798E+03		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		4.65051E-06	+/- 4.2E-08
Delay rate (us/s)	-1.29884574598E+00		Apriori rate (us/s)		-1.29884551565E+00		Resid rate (us/s)		-2.30321E-07	+/- 1.8E-09
Total phase (deg)	180.3		Apriori accel (us/s/s)		-4.01499770824E-05		Resid phase (deg)		144.2	+/- 1.3

	RMS	Theor.	Amplitude	5.045 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	11.9	3.4	Search (256X32)	4.803	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	4.6	5.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	24.3	1.8	Inc. seg. avg.	5.067	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	6.9	3.2	Inc. frq. avg.	5.312	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite			

y: az 308.3 el 58.1 pa 97.9 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 11759.314 -3969.168 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yP.W.114.1WZMQH

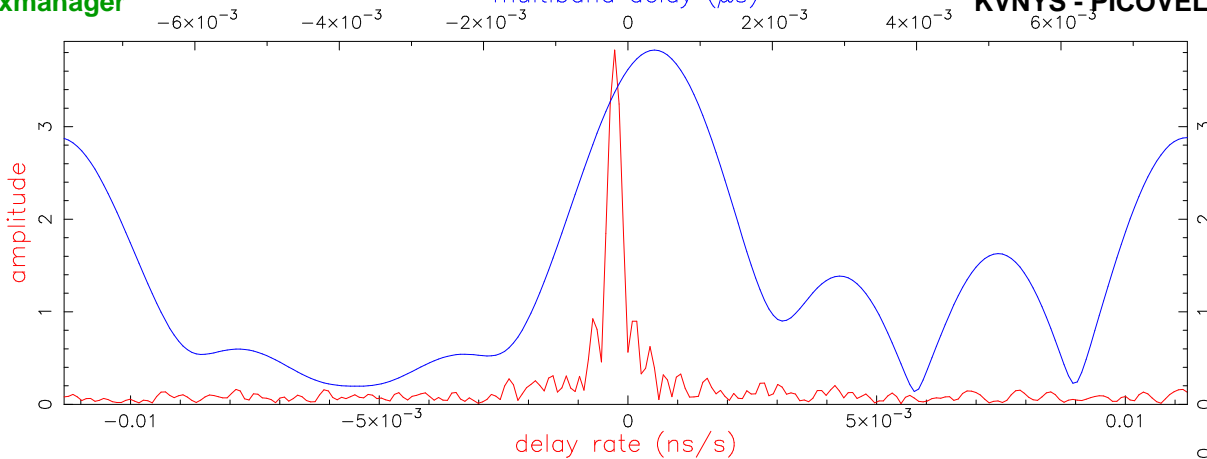
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yP

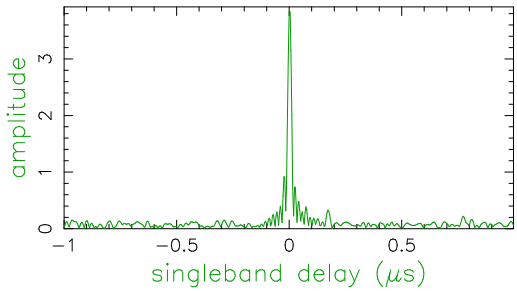
KVNYS - PICOVEL, fgroup W, pol RR

multiband delay ( $\mu$ s)

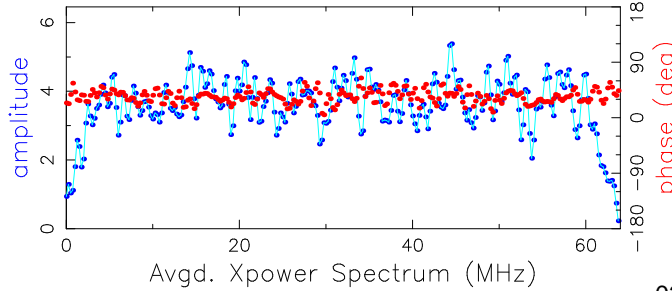


Fringe quality 5

SNR 68.5  
 Int time 40.852  
 Amp 3.921  
 Phase 52.2  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.001926  
 MBD 0.000362  
 Fringe rate (Hz)  
 -0.019900  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

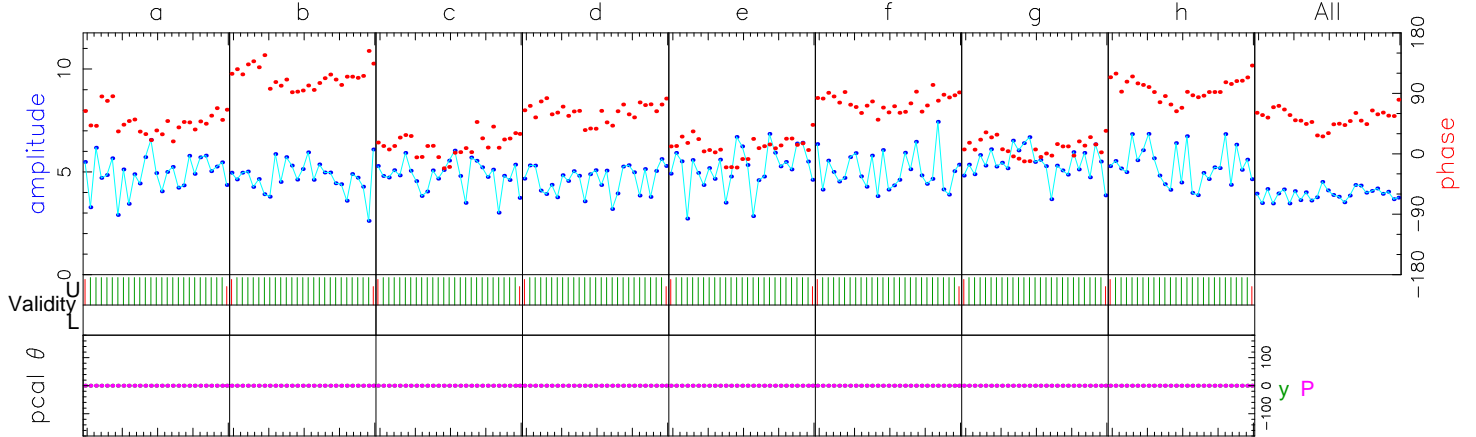


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114013  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

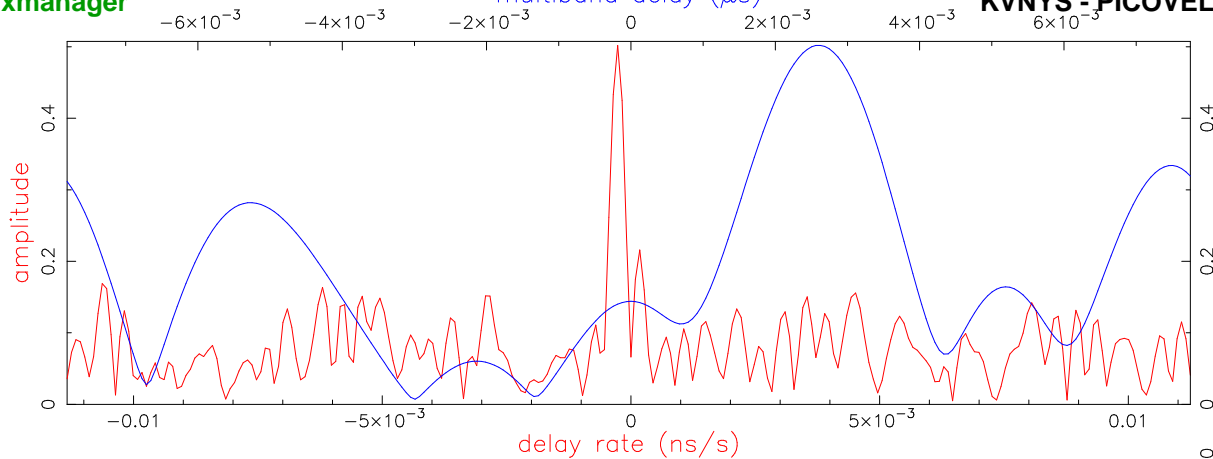
Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0			
y	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
y	1000	1000	1000	1000	1000	1000	1000	1000			
P	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		7.66210160502E+03				7.66210124333E+03			Resid mbdelay (usec)	3.61691E-04 +/- 1.6E-05	
Sband delay (usec)		7.66210316933E+03				1.7434864E+00			Resid sbdelay (usec)	1.92600E-03 +/- 1.3E-04	
Phase delay (usec)		7.66210124501E+03				5.9999998E-07			Resid phdelay (usec)	1.68357E-06 +/- 5.4E-08	
Delay rate (us/s)		-1.29884574667E+00				-1.29884551565E+00			Resid rate (us/s)	-2.31018E-07 +/- 2.3E-09	
Total phase (deg)			88.3			-4.01499770824E-05			Resid phase (deg)	52.2 +/- 1.7	
	RMS	Theor.	Amplitude	3.921 +/- 0.057		Pcal mode: MANUAL, MANUAL			PC period (AP's) 5, 5		
ph/seg (deg)	12.4	4.3	Search (256X32)	3.690		Pcal rate: 0.000E+00, 0.000E+00 (us/s)			sb window (us)	-1.000 1.000	
amp/seg (%)	7.1	7.6	Interp.	0.000		Bits/sample: 2x2			SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	44.3	2.4	Inc. seg. avg.	3.909		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011	
amp/frq (%)	25.0	4.1	Inc. frq. avg.	4.860		Data rate(Mb/s): 2048			nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

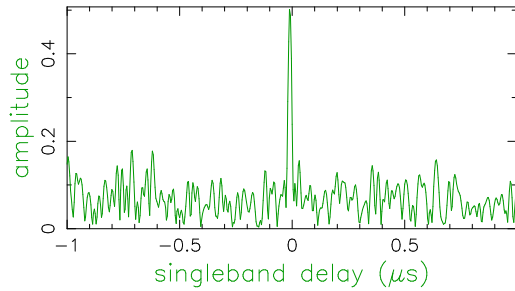
y: az 308.3 el 58.1 pa 97.9 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 11759.314 -3969.168 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yP.W.119.1WZMQH

multiband delay ( $\mu$ s)

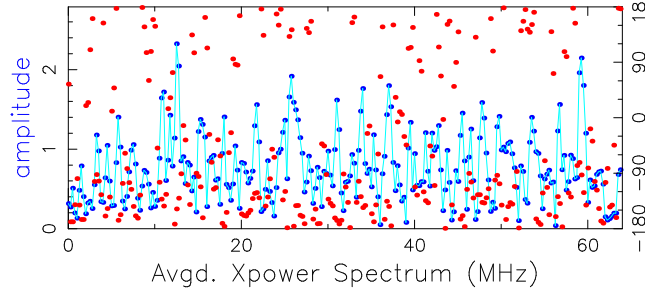


Fringe quality 9

SNR 8.9  
 Int time 40.852  
 Amp 0.508  
 Phase 61.5  
 PFD 3.5e-11  
 Delays ( $\mu$ s)  
 SBD -0.010351  
 MBD 0.002638  
 Fringe rate (Hz)  
 -0.019228  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

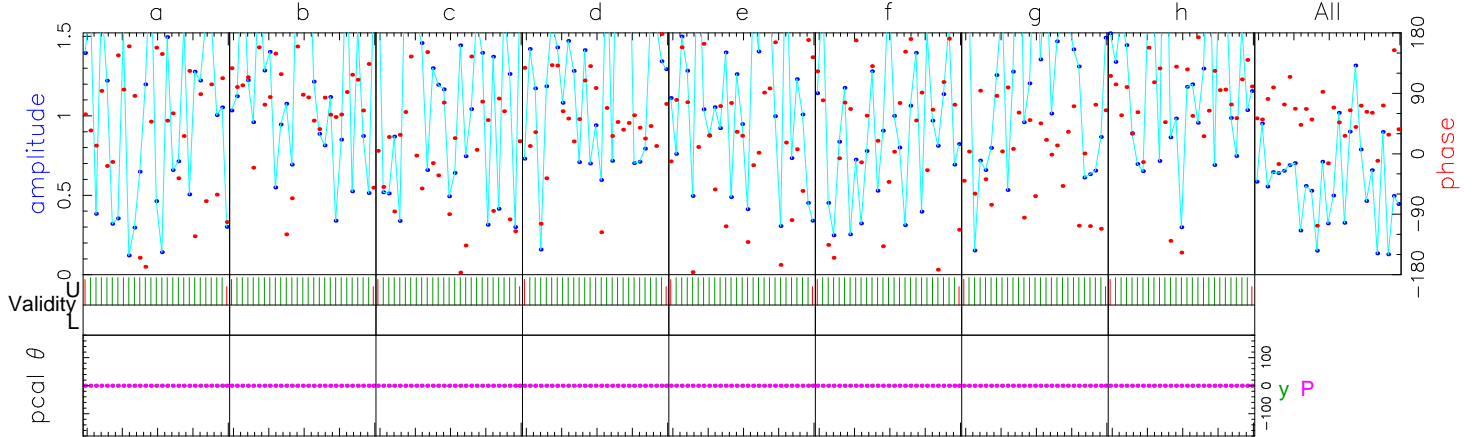


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114015  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
y	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	7.66208825599E+03		Apriori delay (usec)		7.66210124333E+03		Resid mbdelay (usec)		2.63766E-03	+/- 1.2E-04
Sband delay (usec)	7.66209089258E+03		Apriori clock (usec)		1.7434864E+00		Resid sbdelay (usec)		-1.03507E-02	+/- 9.7E-04
Phase delay (usec)	7.66210124531E+03		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		1.98251E-06	+/- 4.2E-07
Delay rate (us/s)	-1.29884573887E+00		Apriori rate (us/s)		-1.29884551565E+00		Resid rate (us/s)		-2.23218E-07	+/- 1.8E-08
Total phase (deg)			Apriori accel (us/s/s)		-4.01499770824E-05		Resid phase (deg)		61.5	+/- 12.9

ph/seg (deg) 49.0 33.6 Amplitude 0.508 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 57.2 58.6 Search (256X32) 0.482 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 37.1 18.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 50.2 31.9 Inc. seg. avg. 0.509 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 y: az 308.3 el 58.1 pa 97.9 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 11759.314 -3969.168 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yP.W.139.1WZMQH simultaneous interpolator



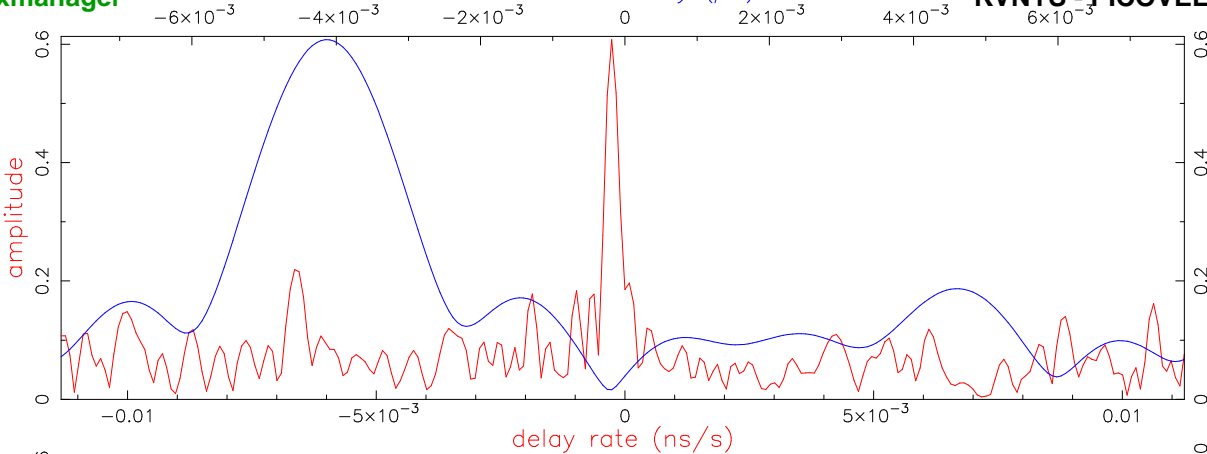
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yP

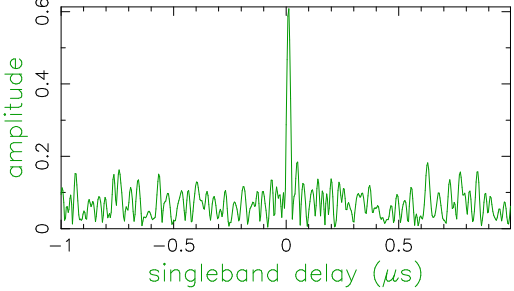
KVNYS - PICOVEL, fgroup W, pol RL

multiband delay ( $\mu$ s)

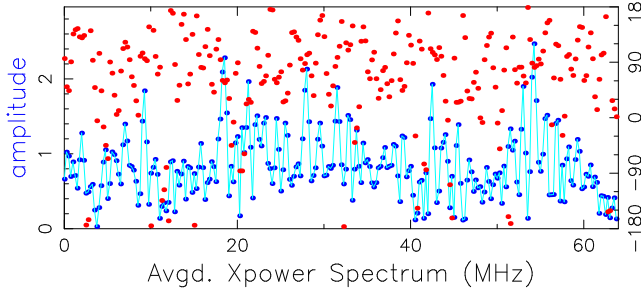


Fringe quality 9

SNR 10.7  
 Int time 40.852  
 Amp 0.613  
 Phase -103.5  
 PFD 4.8e-19  
 Delays (us)  
 SBD 0.010490  
 MBD -0.004138  
 Fringe rate (Hz)  
 -0.019213  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

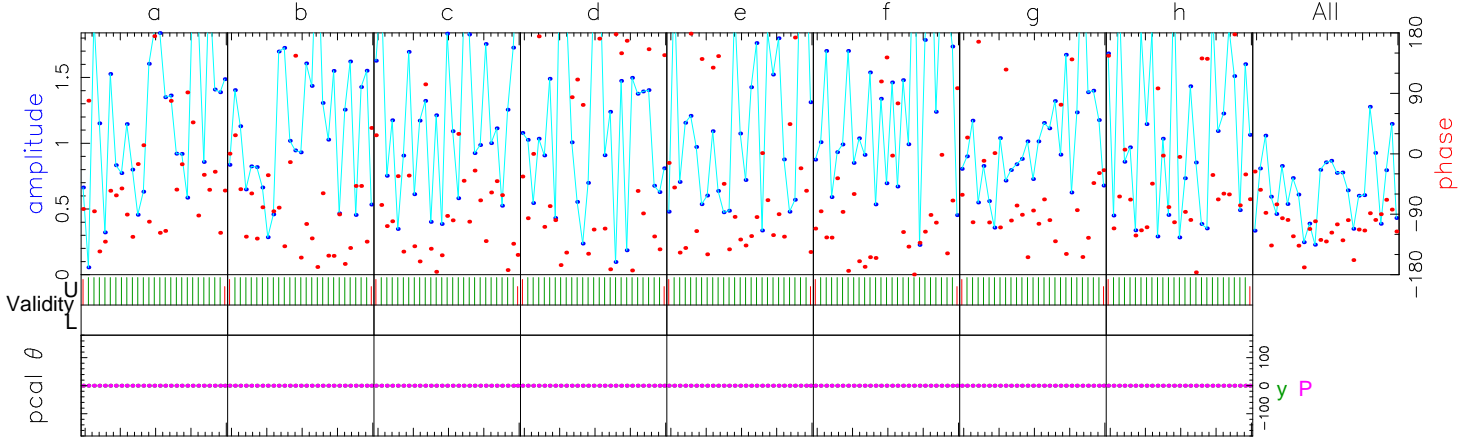


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114016  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-75.5	-111.3	-96.5	-147.6	-99.3	-121.0	-102.0	-77.2	Phase	-103.5
	0.6	0.7	0.7	0.6	0.7	0.6	0.7	0.6	Ampl.	0.6
	259.6	259.9	259.3	137.5	259.9	259.5	260.1	259.2	Sbd box	259.7
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	7.66211273027E+03		Apriori delay (usec)		7.66210124333E+03		Resid mbdelay (usec)		-4.13806E-03	+/- 1.0E-04
Sband delay (usec)	7.66211173283E+03		Apriori clock (usec)		1.7434864E+00		Resid sbdelay (usec)		1.04895E-02	+/- 8.0E-04
Phase delay (usec)	7.66210123999E+03		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		-3.33797E-06	+/- 3.4E-07
Delay rate (us/s)	-1.29884573870E+00		Apriori rate (us/s)		-1.29884551565E+00		Resid rate (us/s)		-2.23043E-07	+/- 1.5E-08
Total phase (deg)			Apriori accel (us/s/s)		-4.01499770824E-05		Resid phase (deg)		-103.5	+/- 10.7

ph/seg (deg) 29.8 27.8 Amplitude 0.613 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 44.0 48.5 Search (256X32) 0.572 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 25.3 15.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 8.6 26.4 Inc. seg. avg. 0.602 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 y: az 308.3 el 58.1 pa 97.9 P: az 45.7 el 28.4 pa -65.9 u,v (fr/asec) 11759.314 -3969.168 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yP..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yP.W.149.1WZMQH simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

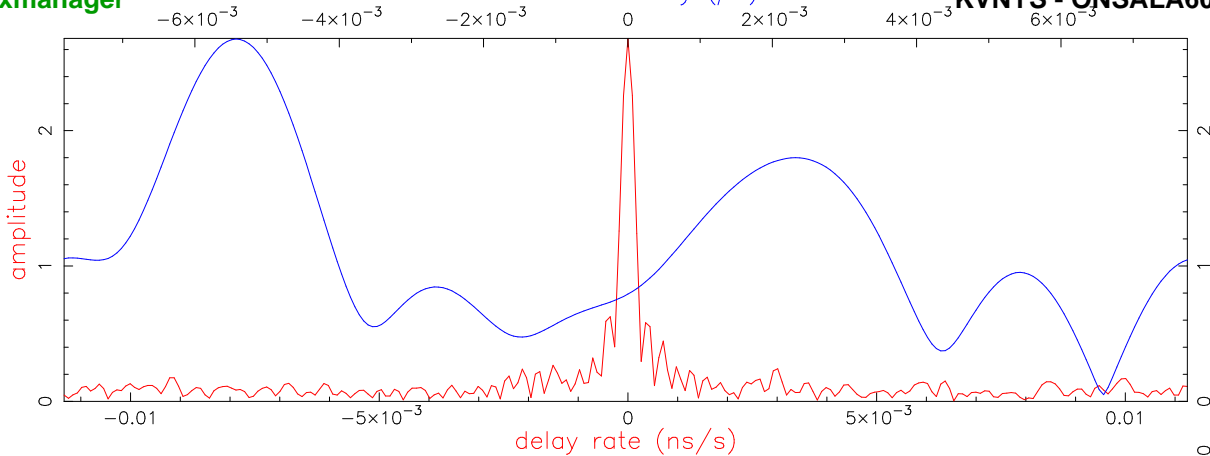
fxmanager

NRAO150.1WZMQH, No0029, yX

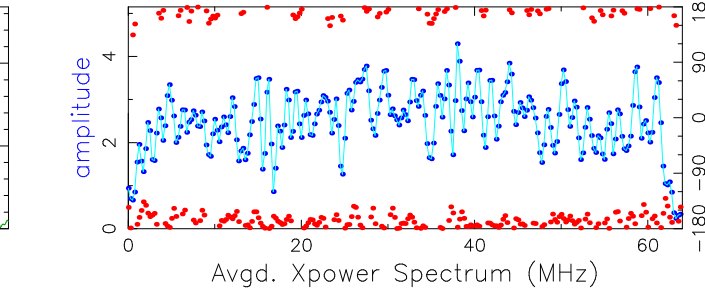
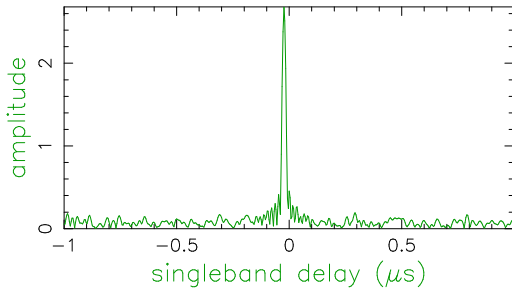
KVNYS - ONSALA60, fgroup W, pol LL

multiband delay ( $\mu$ s)

Fringe quality 6

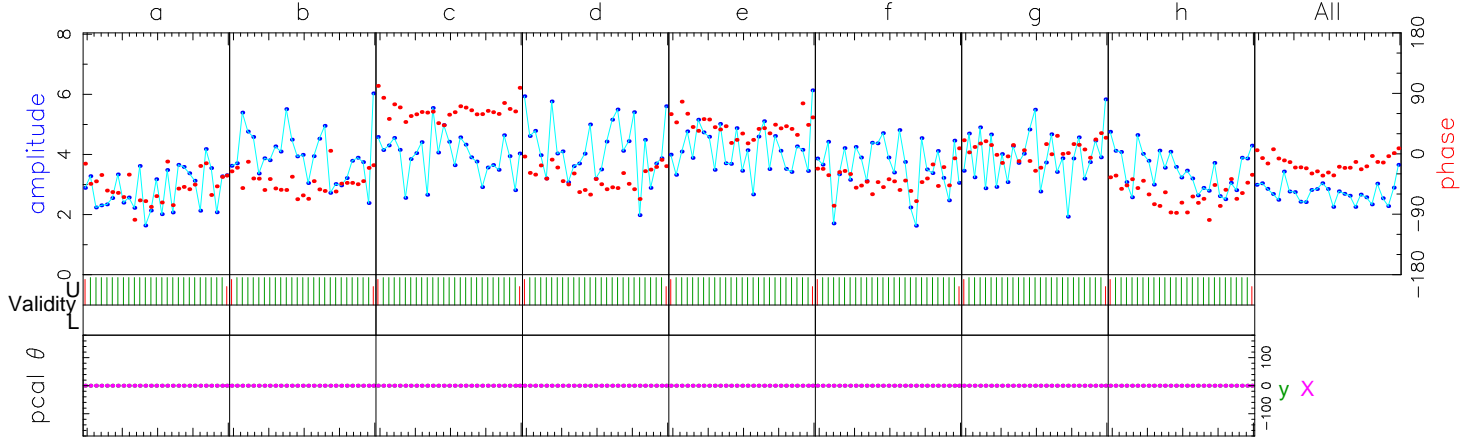


SNR 46.9  
 Int time 40.852  
 Amp 2.682  
 Phase -14.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.022871  
 MBD -0.005412  
 Fringe rate (Hz)  
 -0.002854  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114014  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-48.4	-42.5	64.5	-35.0	41.1	-37.8	5.6	-59.2		Phase	-14.4
	2.6	3.8	3.9	4.0	4.0	3.5	3.8	3.3		Ampl.	3.6
	252.9	251.2	250.8	250.5	250.6	250.3	250.6	250.9		Sbd box	251.1
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000		PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000			
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		Tracks	
										Chan ids	
										Tracks	
Group delay (usec)(sbd)	1.85670007900E+03		Apriori delay (usec)		1.85672111600E+03		Resid mbdelay (usec)		-5.41200E-03	+/-	2.3E-05
Sband delay (usec)	1.85669824475E+03		Apriori clock (usec)		-5.5775070E+01		Resid sbdelay (usec)		-2.28713E-02	+/-	1.8E-04
Phase delay (usec)	1.85672111554E+03		Apriori clockrate (us/s)		-5.2800001E-07		Resid phdelay (usec)		-4.64161E-07	+/-	7.9E-08
Delay rate (us/s)	-1.02305884445E+00		Apriori rate (us/s)		-1.02305881132E+00		Resid rate (us/s)		-3.31265E-08	+/-	3.3E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.06115106529E-05		Resid phase (deg)		-14.4	+/-	2.4

	RMS	Theor.	Amplitude	2.682 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	11.1	6.4	Search (256X32)	2.613	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	11.8	11.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	49.4	3.5	Inc. seg. avg.	2.713	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	38.4	6.0	Inc. frq. avg.	3.609	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00

y: az 308.3 el 58.1 pa 97.9 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 9267.659 -4356.183 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yX.W.122.1WZMQH

Mk4/DiFX fourfit 3.21 rev 2937

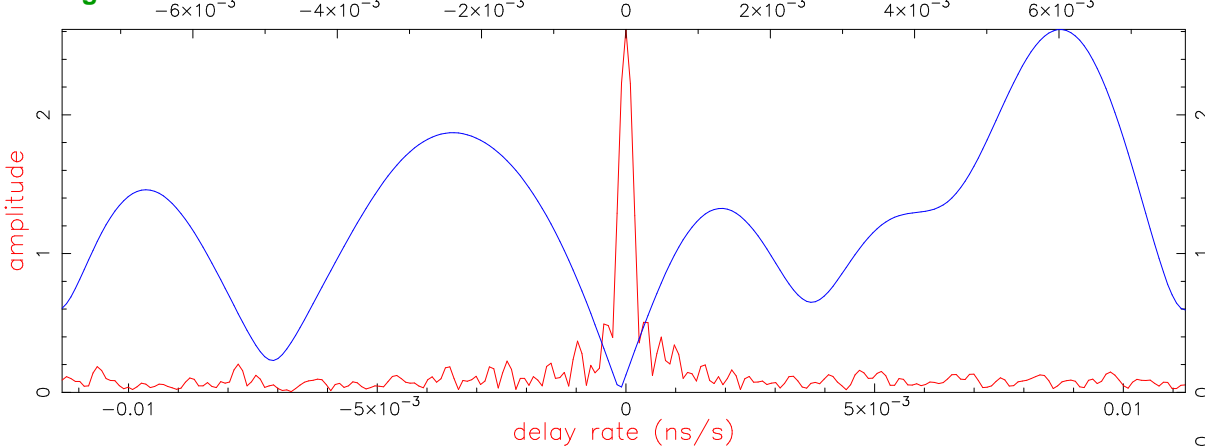
fxmanager

NRAO150.1WZMQH, No0029, yX

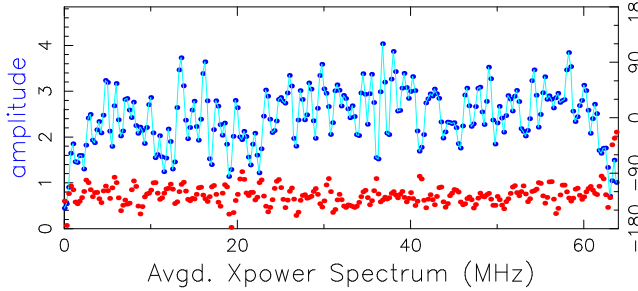
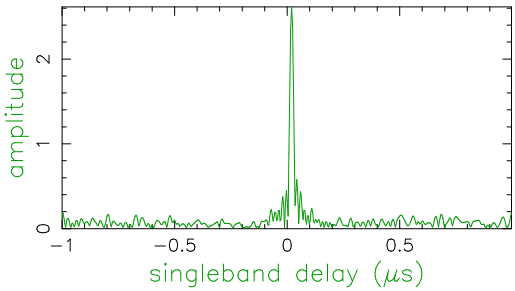
KVNYS - ONSALA60, fgroup W, pol RR

multiband delay ( $\mu$ s)

Fringe quality 5

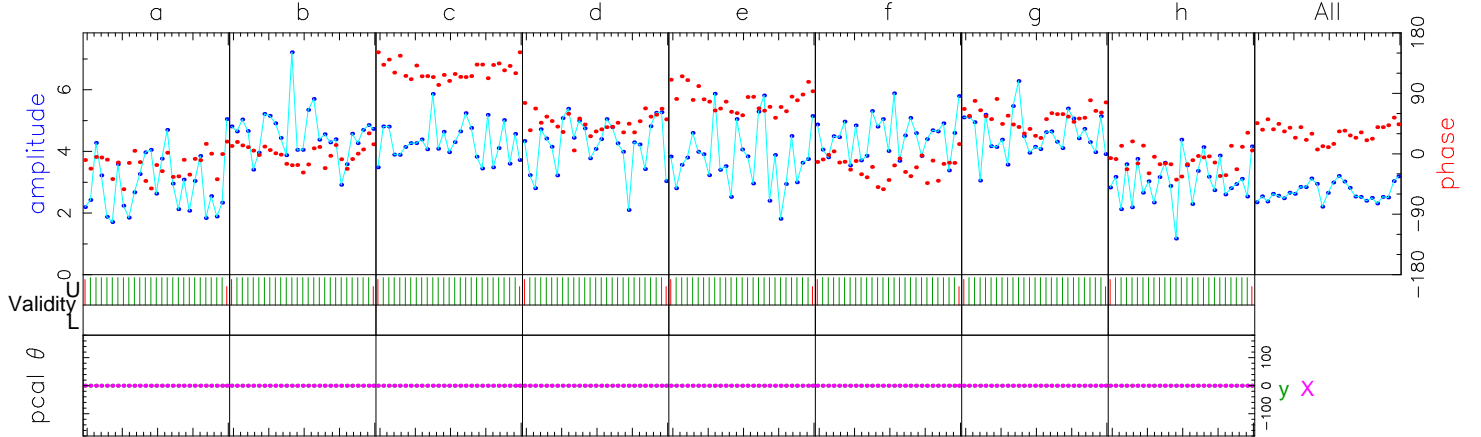


SNR 45.7  
 Int time 40.852  
 Amp 2.616  
 Phase 31.4  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.019705  
 MBD 0.006023  
 Fringe rate (Hz)  
 -0.002907  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114014  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-15.7	0.1	123.0	45.9	79.1	-20.1	54.2	-10.0		Phase
	2.8	4.4	4.2	4.1	3.6	4.3	4.4	2.9		Ampl.
	263.3	262.4	262.1	261.4	261.1	261.6	261.7	262.2		Sbd box
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		APs used
y	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
X	1000	1000	1000	1000	1000	1000	1000	1000		PC freqs
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		PC phase
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		Mani PC
y	1000	1000	1000	1000	1000	1000	1000	1000		PC amp
X	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Chan ids
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		Tracks
										Chan ids
										Tracks
Group delay (usec)(sbd)	1.85674276416E+03		Apriori delay (usec)		1.85672111600E+03		Resid mbdelay (usec)		6.02316E-03	+/- 2.4E-05
Sband delay (usec)	1.85674082100E+03		Apriori clock (usec)		-5.5775070E+01		Resid sbdelay (usec)		1.97050E-02	+/- 1.9E-04
Phase delay (usec)	1.85672111701E+03		Apriori clockrate (us/s)		-5.2800001E-07		Resid phdelay (usec)		1.01404E-06	+/- 8.1E-08
Delay rate (us/s)	-1.02305884507E+00		Apriori rate (us/s)		-1.02305881132E+00		Resid rate (us/s)		-3.37443E-08	+/- 3.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-3.06115106529E-05		Resid phase (deg)		31.4	+/- 2.5

ph/seg (deg) 12.3 6.5 Search (256X32) 2.532 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 10.7 11.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 56.2 3.5 Inc. seg. avg. 2.659 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 53.1 6.2 Inc. frq. avg. 3.846 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 y: az 308.3 el 58.1 pa 97.9 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 9267.659 -4356.183 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yX.W.129.1WZMQH

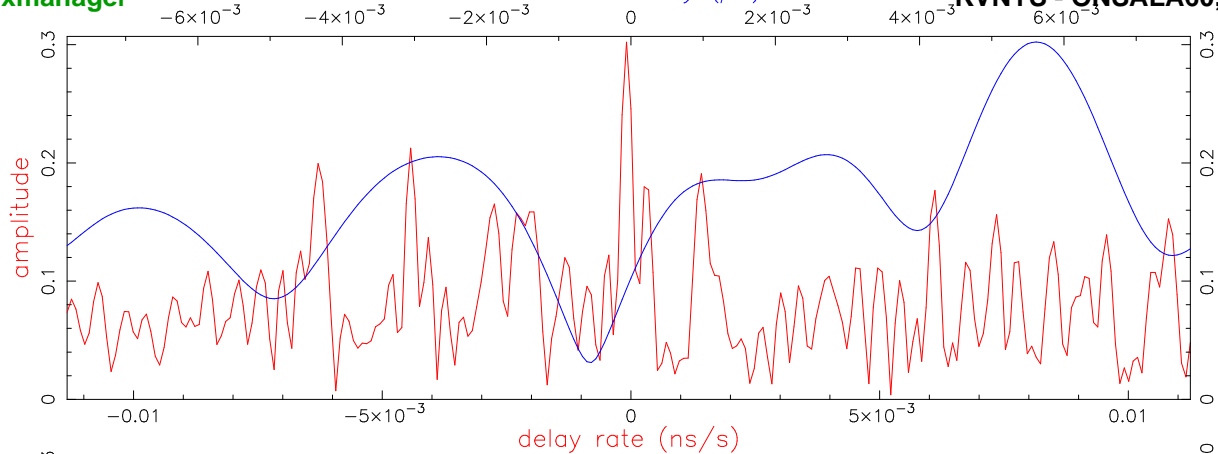
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yX

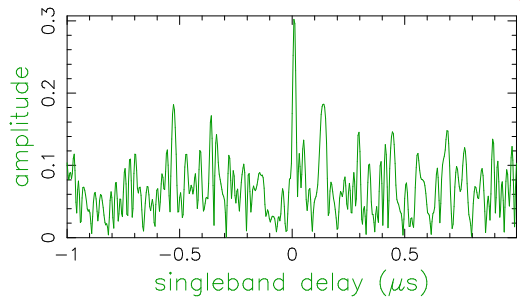
KVNYS - ONSALA60, fgroup W, pol LR

multiband delay ( $\mu$ s)

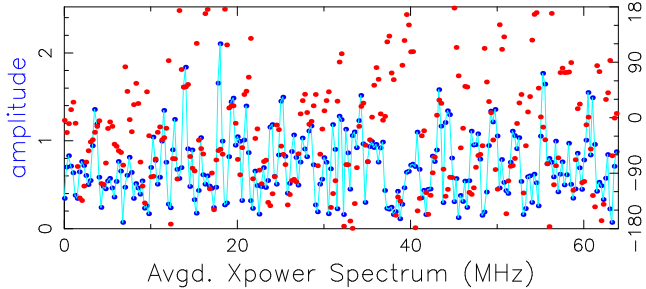


Fringe quality 0

SNR 5.4  
 Int time 40.852  
 Amp 0.307  
 Phase 2.1  
 PFD 9.0e-01  
 Delays (us)  
 SBD 0.009378  
 MBD 0.005651  
 Fringe rate (Hz)  
 -0.004759  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

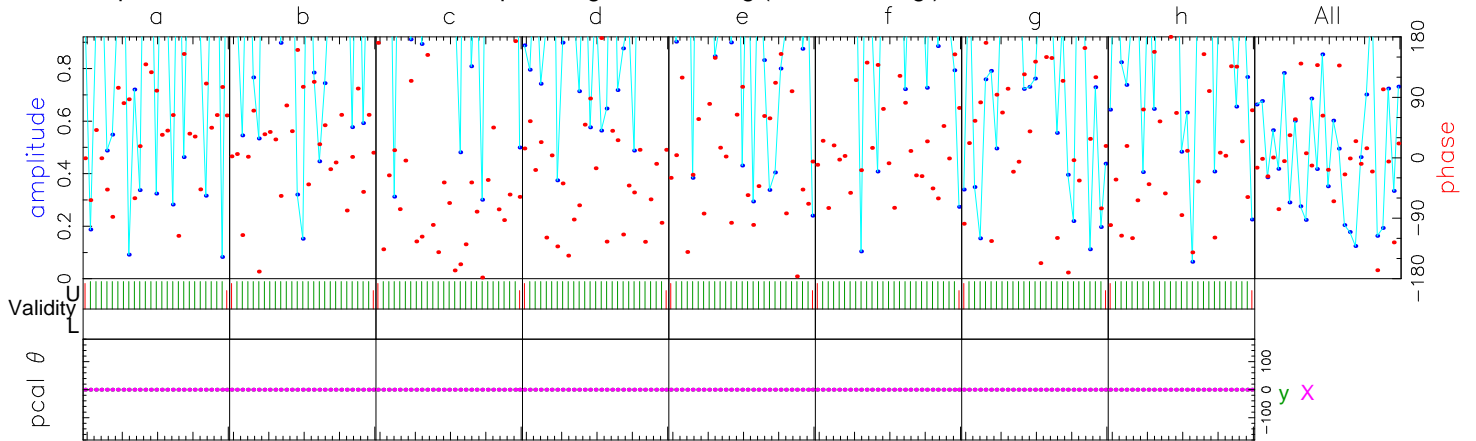


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114015  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)		1.85672676726E+03				1.85672111600E+03			Resid mbdelay (usec)	5.65126E-03 +/- 2.0E-04
Sband delay (usec)		1.85673049400E+03				-5.5775070E+01			Resid sbdelay (usec)	9.37800E-03 +/- 1.6E-03
Phase delay (usec)		1.85672111607E+03				-5.2800001E-07			Resid phdelay (usec)	6.81523E-08 +/- 6.9E-07
Delay rate (us/s)		-1.02305886657E+00				-1.02305881132E+00			Resid rate (us/s)	-5.52448E-08 +/- 2.9E-08
Total phase (deg)			337.7						Resid phase (deg)	2.1 +/- 21.4
	RMS	Theor.	Amplitude	0.307 +/- 0.057					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	70.8	55.5	Search (256X32)	0.289					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	98.3	96.8	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	61.5	30.2	Inc. seg. avg.	0.330					Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	82.2	52.7	Inc. frq. avg.	0.397					Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

y: az 308.3 el 58.1 pa 97.9 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 9267.659 -4356.183 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yX.W.140.1WZMQH

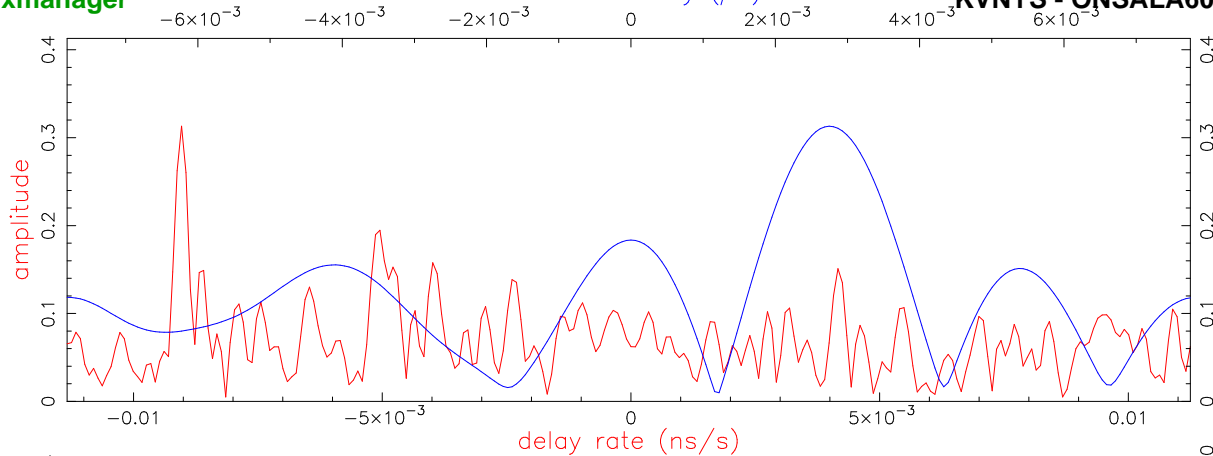
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yX

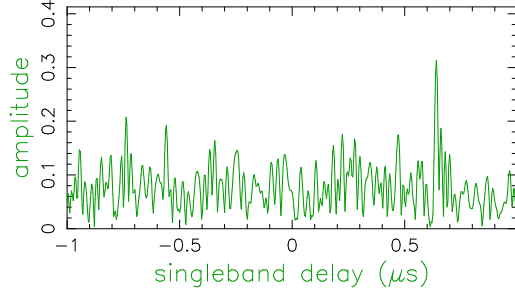
KVNYS - ONSALA60, fgroup W, pol RL

multiband delay ( $\mu$ s)

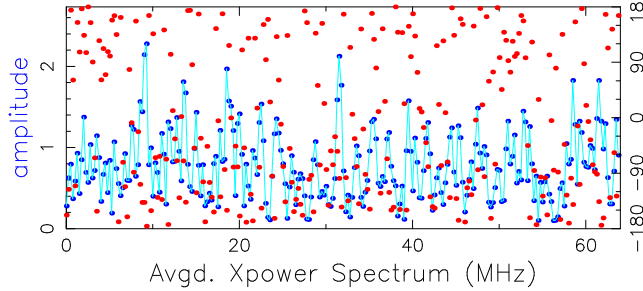


Fringe quality 0

SNR 5.5  
 Int time 40.852  
 Amp 0.413  
 Phase -9.1  
 PFD 7.2e-01  
 Delays (us)  
 SBD 0.640294  
 MBD 0.002758  
 Fringe rate (Hz)  
 -0.778018  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

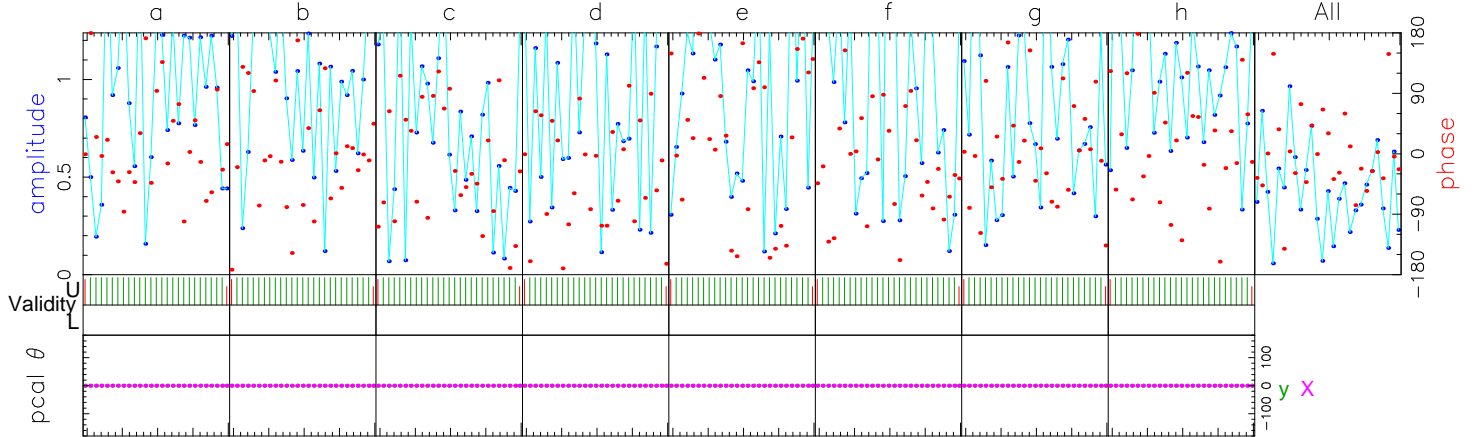


delay rate (ns/s)



Exp. c211c  
 Yr:day # 16383  
 2021:302:193655  
 2021:303:114017  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-2.7	-9.6	3.2	-40.5	118.8	-14.1	-16.1	-2.6	Phase	-9.1
	0.6	0.6	0.1	0.6	0.3	0.6	0.6	0.5	Ampl.	0.4
	346.3	421.2	163.9	399.2	80.5	376.8	355.1	49.8	Sbd box	420.9
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
X	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.85736449881E+03		Apriori delay (usec)		1.85672111600E+03		Resid mbdelay (usec)		2.75781E-03	+/- 2.0E-04
Sband delay (usec)	1.85736140975E+03		Apriori clock (usec)		-5.5775070E+01		Resid sbdelay (usec)		6.40294E-01	+/- 1.6E-03
Phase delay (usec)	1.85672111571E+03		Apriori clockrate (us/s)		-5.2800001E-07		Resid phdelay (usec)		-2.93100E-07	+/- 6.7E-07
Delay rate (us/s)	-1.02306784333E+00		Apriori rate (us/s)		-1.02305881132E+00		Resid rate (us/s)		-9.03201E-06	+/- 2.9E-08
Total phase (deg)			Apriori accel (us/s/s)		-3.06115106529E-05		Resid phase (deg)		-9.1	+/- 20.9

ph/seg (deg) 62.6 54.4 Search (256X32) 0.301 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 80.2 94.9 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 54.2 29.6 Inc. seg. avg. 0.393 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 42.1 51.6 Inc. frq. avg. 0.433 Data rate (Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 y: az 308.3 el 58.1 pa 97.9 X: az 65.8 el 48.5 pa -51.7 u,v (fr/asec) 9267.659 -4356.183 simultaneous interpolator

Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yX..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yX.W.150.1WZMQH

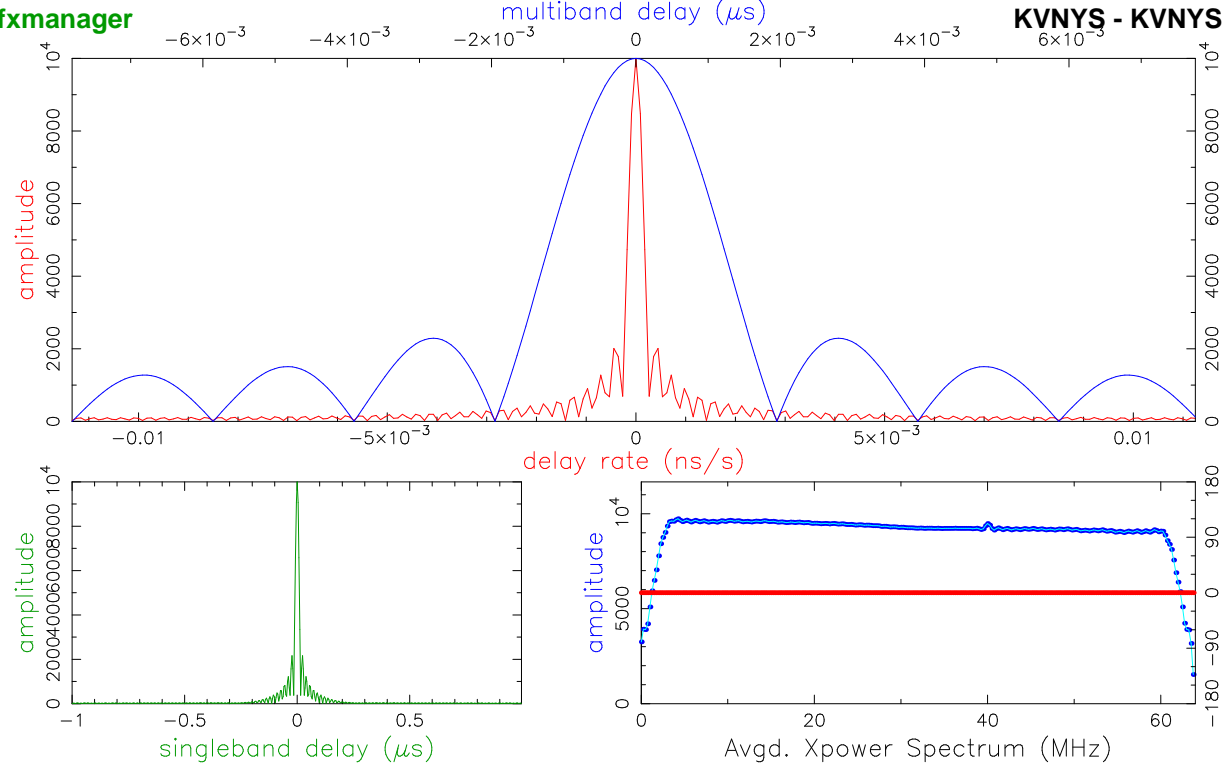


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

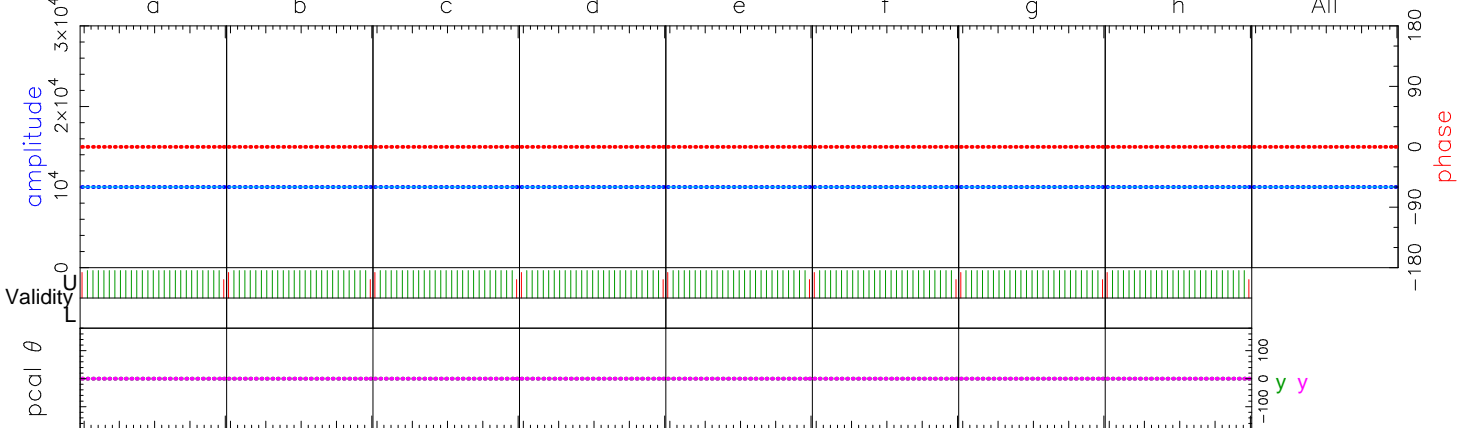
NRAO150.1WZMQH, No0029, yy

KVNY<sub>3</sub> - KVNY<sub>5</sub>, fgroup W, pol LL



Fringe quality 9  
 SNR 174784.2  
 Int time 40.852  
 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. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114013  
 2021:252:122852  
 RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	Ampl.	10000.0
y	1000	1000	1000	1000	1000	1000	1000	1000	Sbd box	257.0
y	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	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)	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	0.000000000000E+00	Resid mbdelay (usec)	0.00000E+00 +/- 6.2E-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	Resid sbdelay (usec)	0.00000E+00 +/- 4.9E-08
Phase 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	Resid phdelay (usec)	0.00000E+00 +/- 2.1E-11
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	Resid rate (us/s)	0.00000E+00 +/- 8.9E-13
Total phase (deg)			0.0						Resid phase (deg)	0.0 +/- 0.0

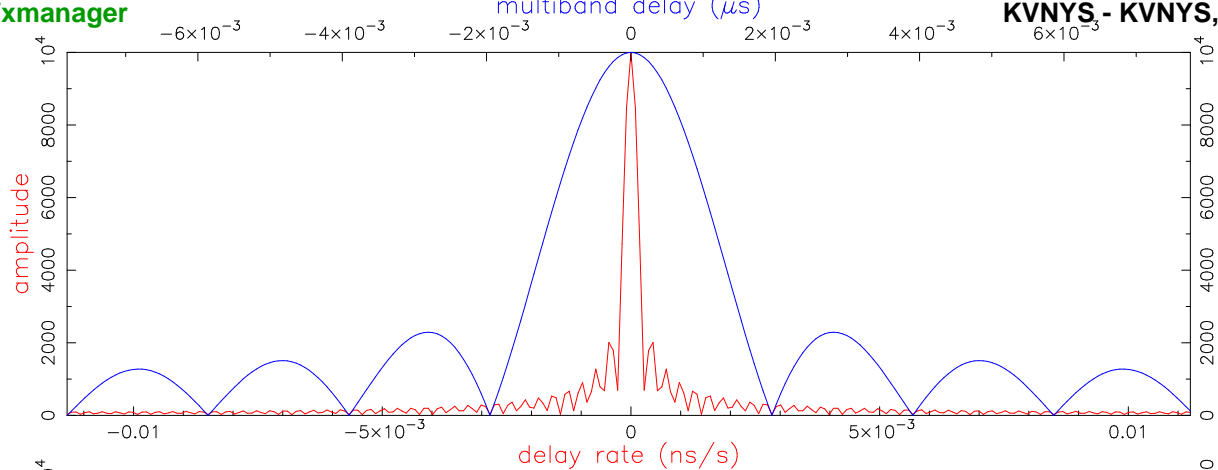
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (256X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 y: az 308.3 el 58.1 pa 97.9 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 0.000 0.000 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yy.W.115.1WZMQH simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

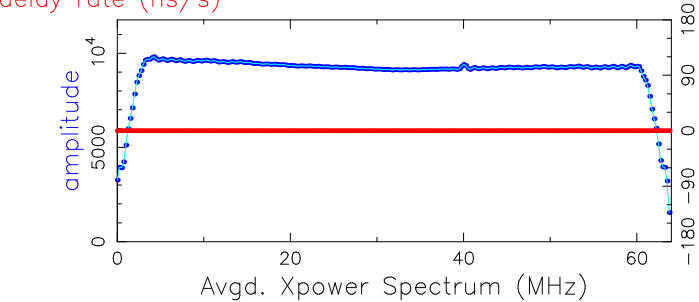
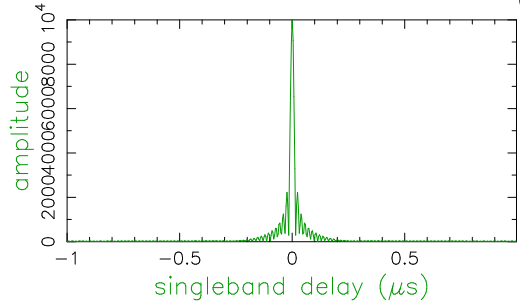
NRAO150.1WZMQH, No0029, yy

KVNYS - KVNYS, fgroup W, pol RR



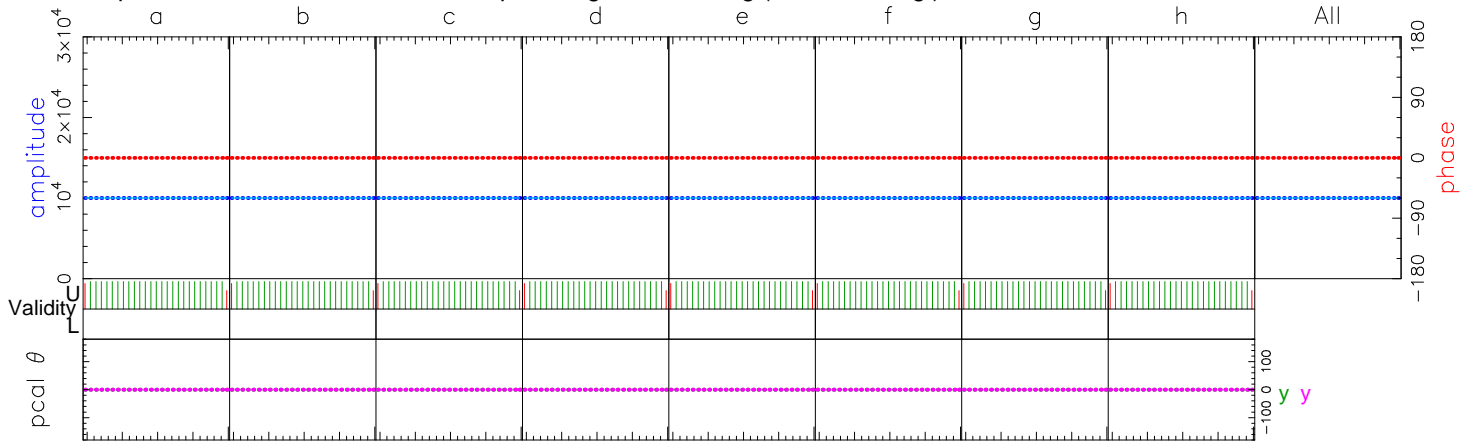
Fringe quality 9

SNR 174784.2  
 Int time 40.852  
 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. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114013  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
y	1000	1000	1000	1000	1000	1000	1000	1000	Ampl.	10000.0
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	257.0
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Mani PC	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	PC amp	
									Chan ids	
									Tracks	
									Chan ids	
									Tracks	
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	Resid mbdelay (usec)	0.00000E+00 +/- 6.2E-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	Resid sbdelay (usec)	0.00000E+00 +/- 4.9E-08
Phase 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	Resid phdelay (usec)	0.00000E+00 +/- 2.1E-11
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	Resid rate (us/s)	0.00000E+00 +/- 8.9E-13
Total phase (deg)			0.0						Resid phase (deg)	0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.000 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 0.0 0.0 Search (256X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 Inc. frq. avg. 10000.000 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 0.000 0.000 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yy.W.120.1WZMQH

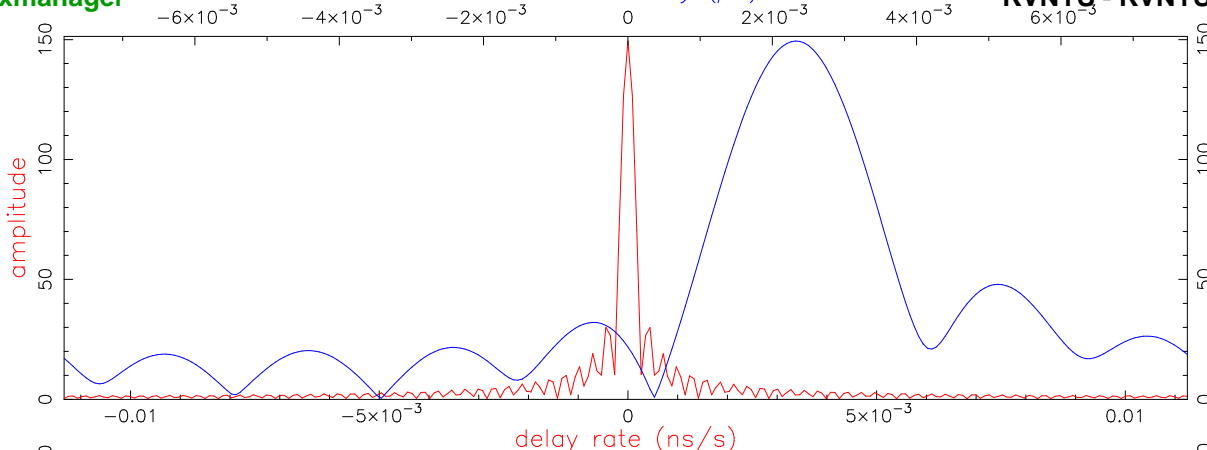
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

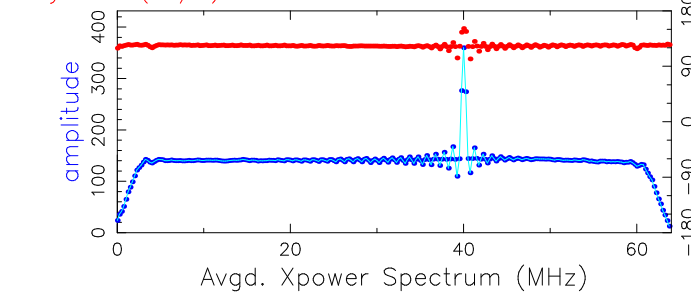
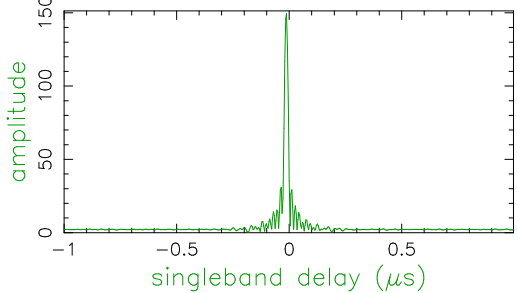
NRAO150.1WZMQH, No0029, yy

KVNYs - KVNYs, fgroup W, pol LR

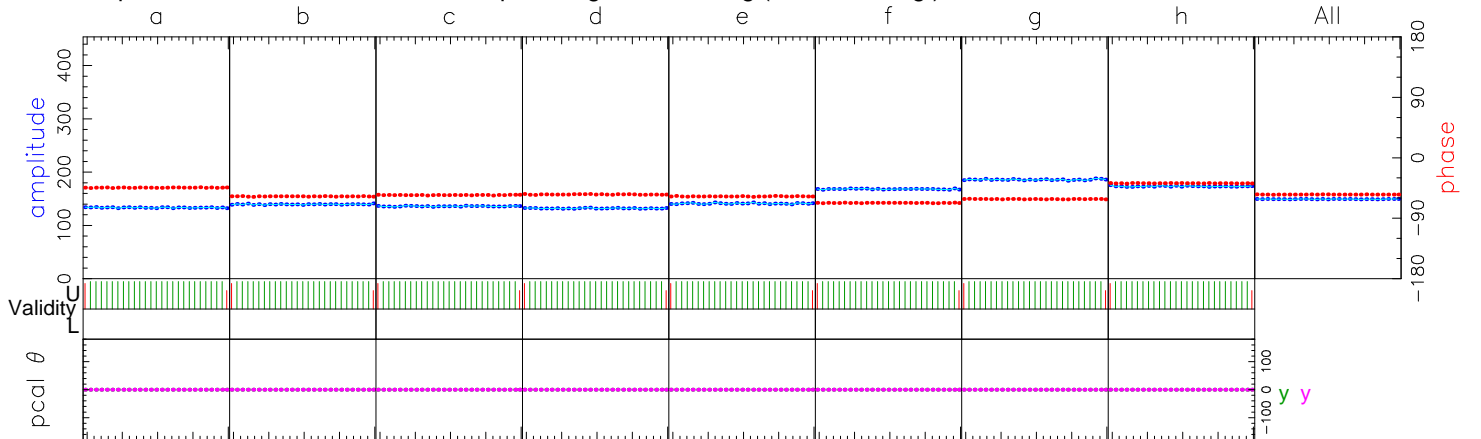
multiband delay ( $\mu$ s)



Fringe quality 9  
 SNR 2645.0  
 Int time 40.852  
 Amp 151.329  
 Phase -54.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD -0.013168  
 MBD 0.002328  
 Fringe rate (Hz) -0.000002  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114015  
 2021:252:122852  
 RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"



Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-44.5	-57.4	-55.4	-54.5	-57.4	-67.1	-61.5	-37.9	Phase	-54.7
	133.5	139.6	136.1	132.2	141.2	168.3	185.9	173.5	Ampl.	151.3
	253.5	253.5	253.6	253.6	253.5	253.6	253.7	254.0	Sbd box	253.6
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-1.32970625000E-02		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		2.32794E-03	+/- 4.1E-07
Sband delay (usec)	-1.31685000000E-02		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.31685E-02	+/- 3.3E-06
Phase delay (usec)	-1.76236506052E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-1.76237E-06	+/- 1.4E-09
Delay rate (us/s)	-2.83423047834E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-2.83423E-11	+/- 5.9E-11
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-54.7	+/- 0.0

ph/seg (deg) 0.1 0.1 Theor. Amplitude 151.329 +/- 0.057 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 1.3 0.2 Search (256X32) 148.572 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 10.0 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 13.1 0.1 Inc. seg. avg. 149.404 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011  
 y: az 308.3 el 58.1 pa 97.9 y: az 308.3 el 58.1 pa 97.9 u,v (fr/asec) 0.000 0.000 nlags: 256 t\_cohere infinite ion window (TEC) 0.00 0.00  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yy.W.135.1WZMQH simultaneous interpolator

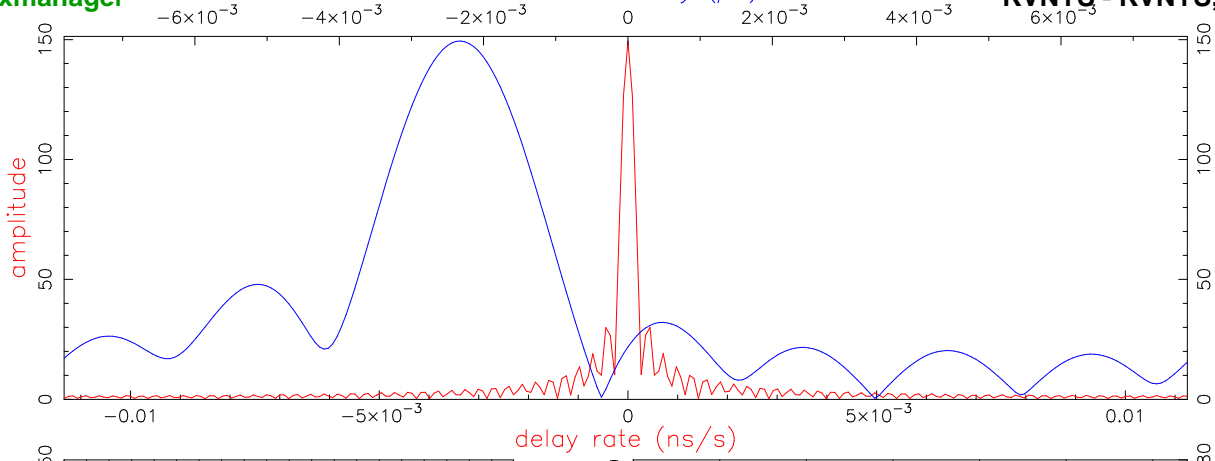
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

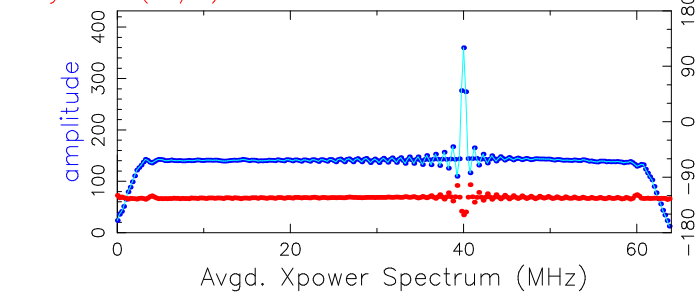
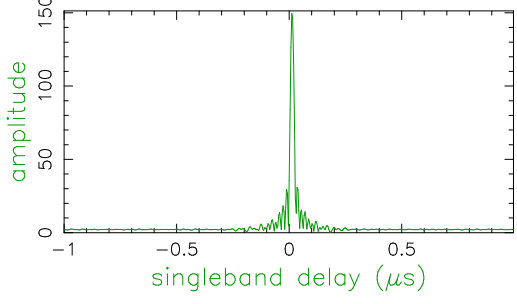
NRAO150.1WZMQH, No0029, yy

KVNY5 - KVNY5, fgroup W, pol RL

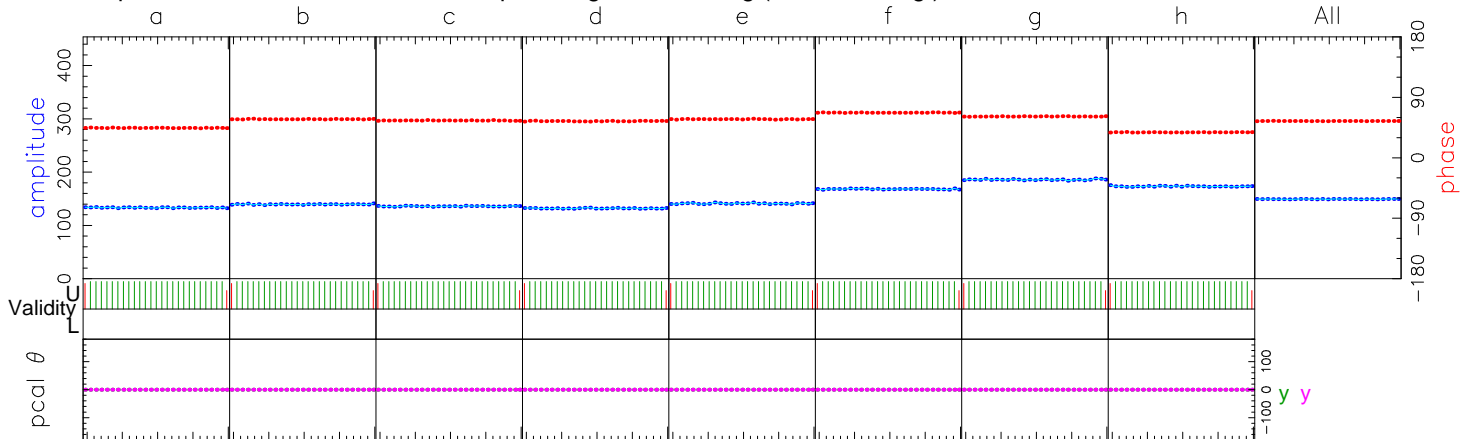
multiband delay ( $\mu$ s)



Fringe quality 9  
 SNR 2645.0  
 Int time 40.852  
 Amp 151.329  
 Phase 54.7  
 PFD 0.0e+00  
 Delays (us)  
 SBD 0.013168  
 MBD -0.002328  
 Fringe rate (Hz) 0.000002  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114016  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"



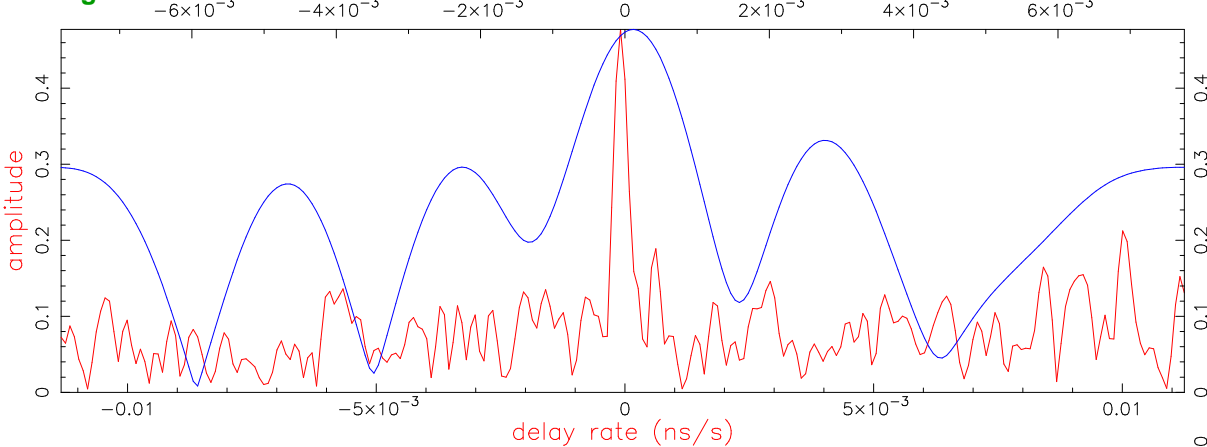
Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0				
y	1000	1000	1000	1000	1000	1000	1000	1000				
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
y:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0				
y	1000	1000	1000	1000	1000	1000	1000	1000				
y	1000	1000	1000	1000	1000	1000	1000	1000				
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR				
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL				
Group delay (usec)(sbd)		1.329706250000E-02			0.000000000000E+00				Resid mbdelay (usec)	-2.32794E-03 +/- 4.1E-07		
Sband delay (usec)		1.316850000000E-02			0.000000000000E+00				Resid sbdelay (usec)	1.31685E-02 +/- 3.3E-06		
Phase delay (usec)		1.76236506046E-06			0.000000000000E+00				Resid phdelay (usec)	1.76237E-06 +/- 1.4E-09		
Delay rate (us/s)		2.83423047834E-11			0.000000000000E+00				Resid rate (us/s)	2.83423E-11 +/- 5.9E-11		
Total phase (deg)			54.7		0.000000000000E+00				Resid phase (deg)	54.7 +/- 0.0		
ph/seg (deg)	0.1	0.1		151.329 +/- 0.057					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	1.3	0.2		Search (256X32)	148.572				PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	10.0	0.1		Interp.	0.000				Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	13.1	0.1		Inc. seg. avg.	149.404				Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011	
				Inc. frq. avg.	151.294				Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00
y: az 308.3 el 58.1 pa 97.9				y: az 308.3 el 58.1 pa 97.9					u,v (fr/asec) 0.000 0.000		simultaneous interpolator	

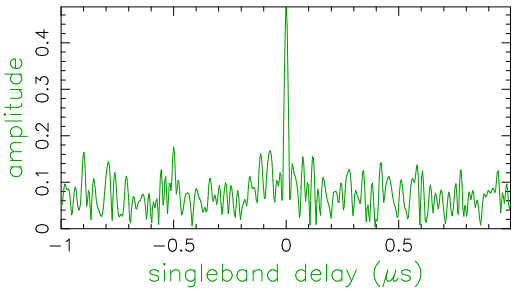
Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yy..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yy.W.148.1WZMQH

multiband delay ( $\mu$ s)

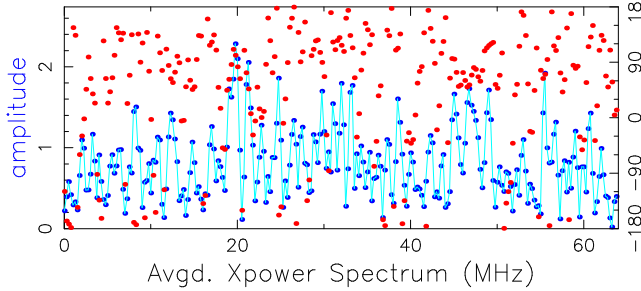


Fringe quality 9

SNR 8.3  
 Int time 40.812  
 Amp 0.477  
 Phase 96.5  
 PFD 3.3e-09  
 Delays (us)  
 SBD -0.000097  
 MBD 0.000115  
 Fringe rate (Hz)  
 -0.009764  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

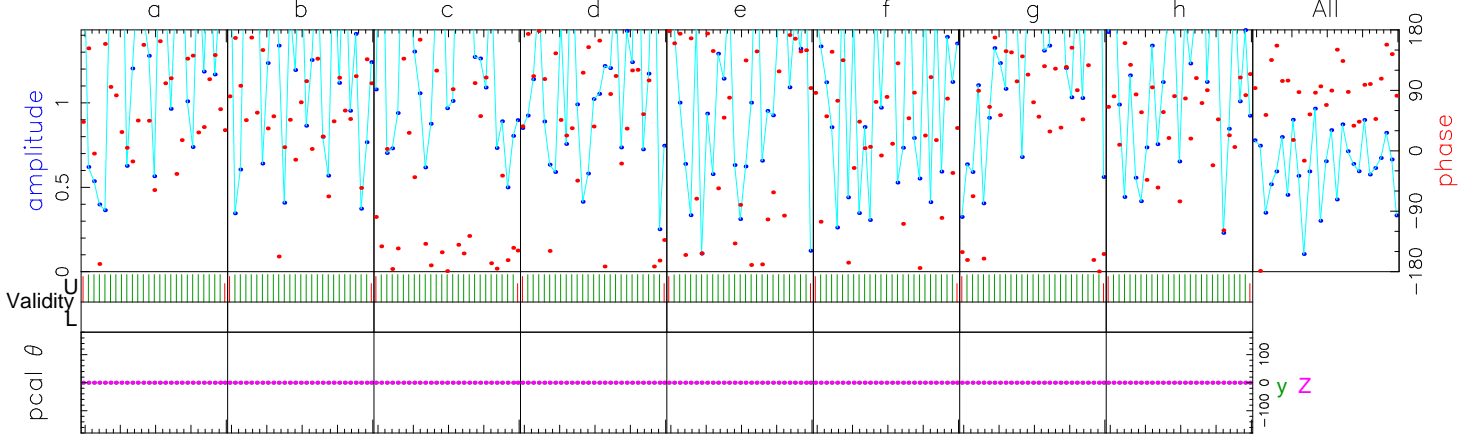


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114014  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0		
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	3.28576084068E+02	Apriori delay (usec)	3.28575969338E+02	Resid mbdelay (usec)	1.14730E-04	+/-	1.3E-04
Sband delay (usec)	3.28575872588E+02	Apriori clock (usec)	1.4199085E+00	Resid sbdelay (usec)	-9.67500E-05	+/-	1.0E-03
Phase delay (usec)	3.28575972451E+02	Apriori clockrate (us/s)	-1.6000000E-08	Resid phdelay (usec)	3.11300E-06	+/-	4.4E-07
Delay rate (us/s)	-9.41965496967E-01	Apriori rate (us/s)	-9.41965383620E-01	Resid rate (us/s)	-1.13347E-07	+/-	1.9E-08
Total phase (deg)	96.1	Apriori accel (us/s/s)	-2.44264386706E-05	Resid phase (deg)	96.5	+/-	13.7

ph/seg (deg)	45.6	Theor.	35.7	Amplitude	0.477 +/- 0.057	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	53.4		62.3	Search (256X32)	0.469	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	59.6		19.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	54.4		33.9	Inc. seg. avg.	0.530	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.661	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

y: az 308.3 el 58.1 pa 97.9      Z: az 77.3 el 55.6 pa -50.2      u,v (fr/asec) 8539.886 -3891.659      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps/c211c/v1/1234/No0029/yZ..1WZMQH    Output file: /Exps/c211c/v1/1234/No0029/yZ.W.127.1WZMQH

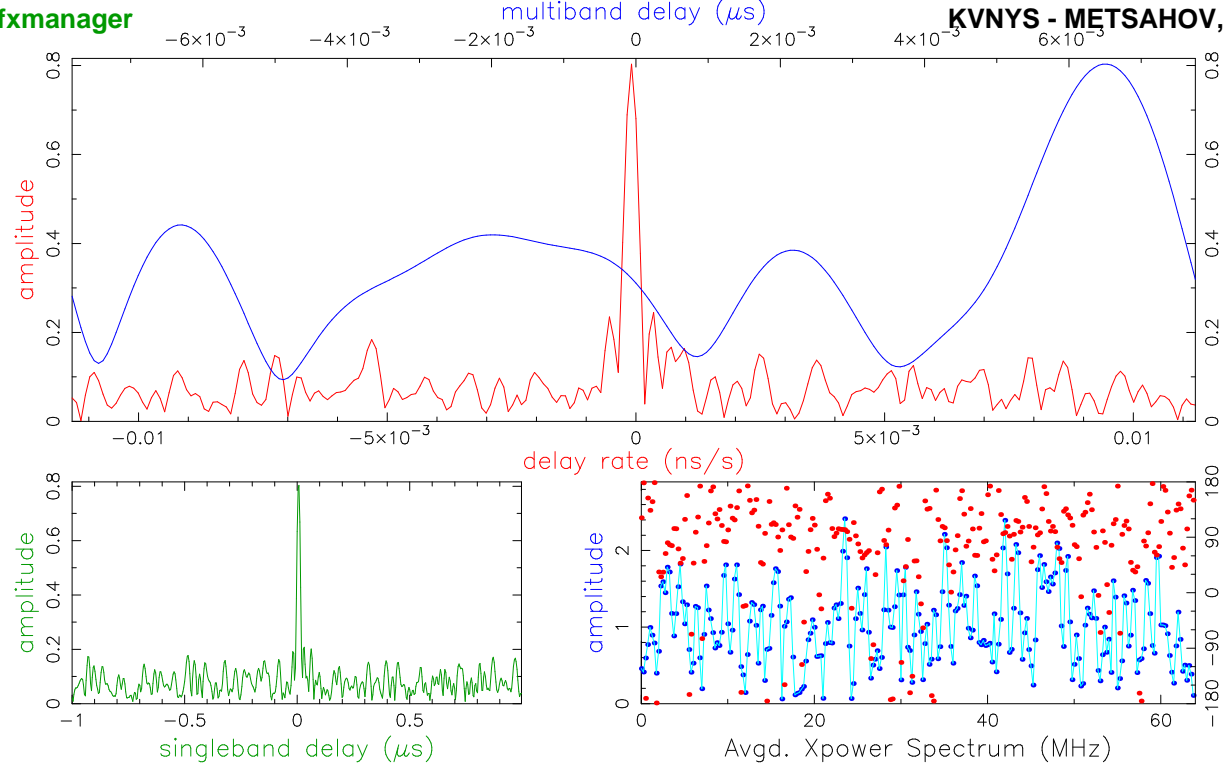


Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yZ

KVNYS - METSAHOV, fgroup W, pol RR

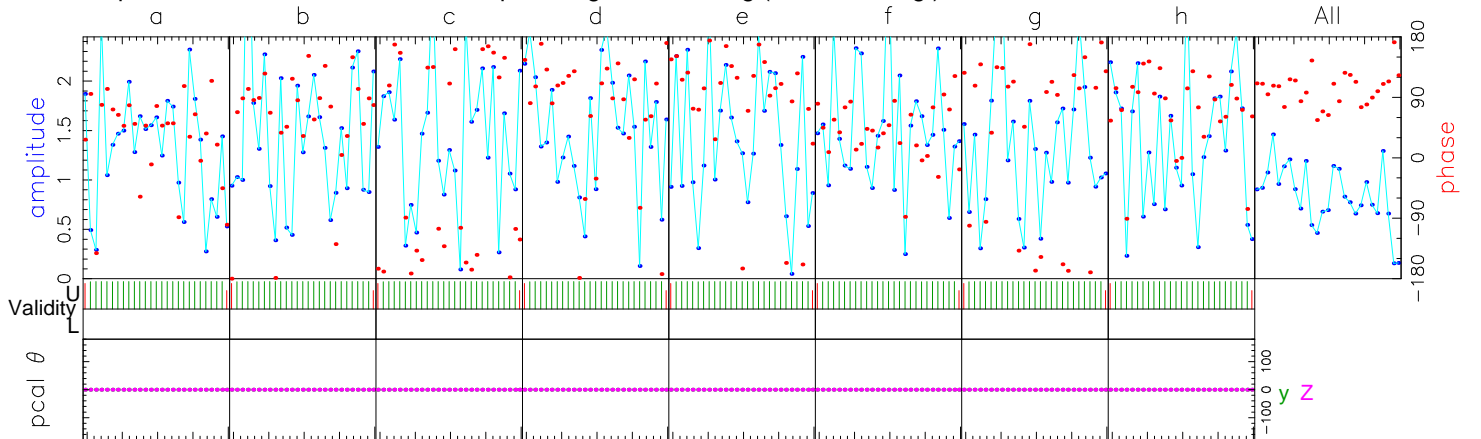


Fringe quality 8

SNR 14.3  
 Int time 40.812  
 Amp 0.816  
 Phase 100.4  
 PFD 3.0e-38  
 Delays (us)  
 SBD 0.006210  
 MBD 0.006467  
 Fringe rate (Hz)  
 -0.009380  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114015  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	46.6	90.7	175.5	105.2	133.7	38.7	135.1	86.6	Phase	100.4
	0.9	1.1	1.1	1.1	1.1	1.3	1.0	1.1	Ampl.	1.1
	259.7	258.4	257.8	258.0	257.6	257.9	257.9	258.8	Sbd box	258.6
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.28582436100E+02		Apriori delay (usec)		3.28575969338E+02		Resid mbdelay (usec)		6.46676E-03	+/- 7.6E-05
Sband delay (usec)	3.28582179588E+02		Apriori clock (usec)		1.4199085E+00		Resid sbdelay (usec)		6.21025E-03	+/- 6.0E-04
Phase delay (usec)	3.28575972575E+02		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		3.23713E-06	+/- 2.6E-07
Delay rate (us/s)	-9.41965492517E-01		Apriori rate (us/s)		-9.41965383620E-01		Resid rate (us/s)		-1.08897E-07	+/- 1.1E-08
Total phase (deg)			Apriori accel (us/s/s)		-2.44264386706E-05		Resid phase (deg)		100.4	+/- 8.0

ph/seg (deg) 25.0 20.9 Search (256X32) 0.791 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 37.0 36.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000  
 ph/frq (deg) 50.0 11.4 Inc. seg. avg. 0.799 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 35.2 19.8 Inc. frq. avg. 1.067 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 y: az 308.3 el 58.1 pa 97.9 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8539.886 -3891.659 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yZ.W.132.1WZMQH

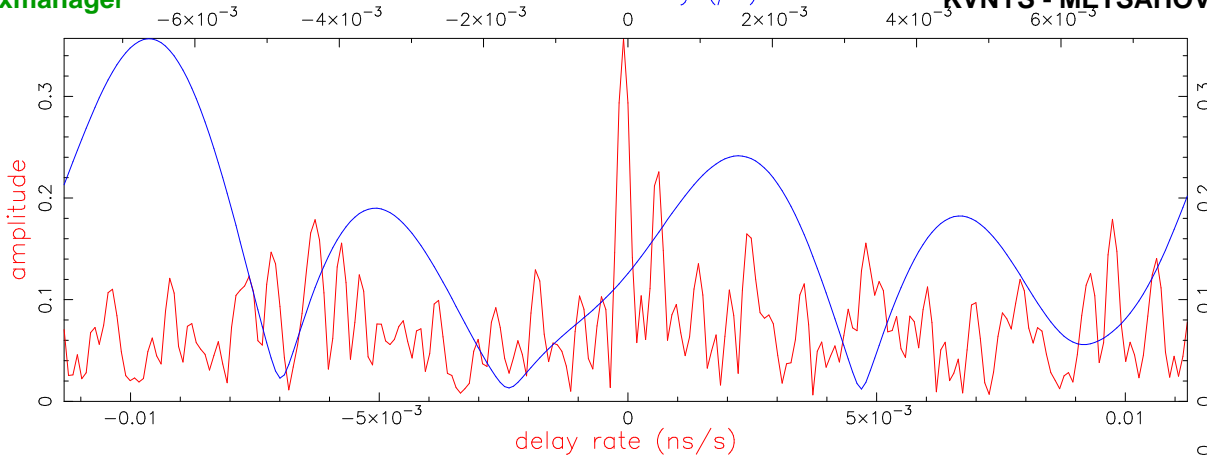
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

NRAO150.1WZMQH, No0029, yZ

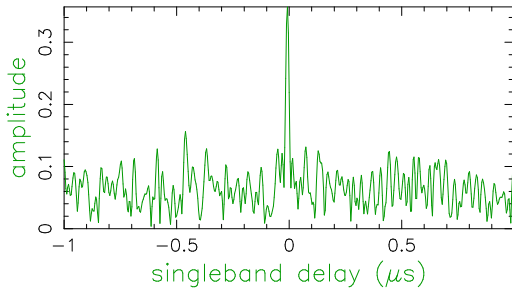
KVNYS - METSAHOV, fgroup W, pol LR

multiband delay ( $\mu$ s)

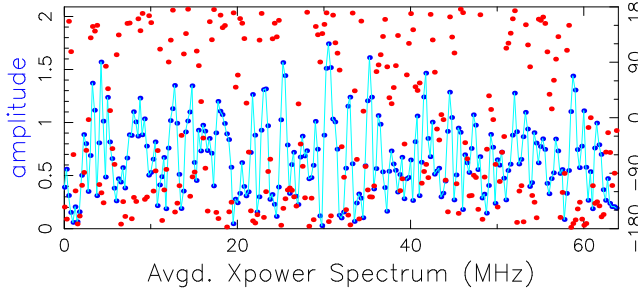


Fringe quality 0

SNR 6.2  
 Int time 40.812  
 Amp 0.357  
 Phase 177.3  
 PFD 1.5e-02  
 Delays (us)  
 SBD -0.008211  
 MBD -0.006645  
 Fringe rate (Hz)  
 -0.011109  
 Ion TEC 0.000  
 Ref freq (MHz)  
 86140.0000  
 AP (sec) 0.512

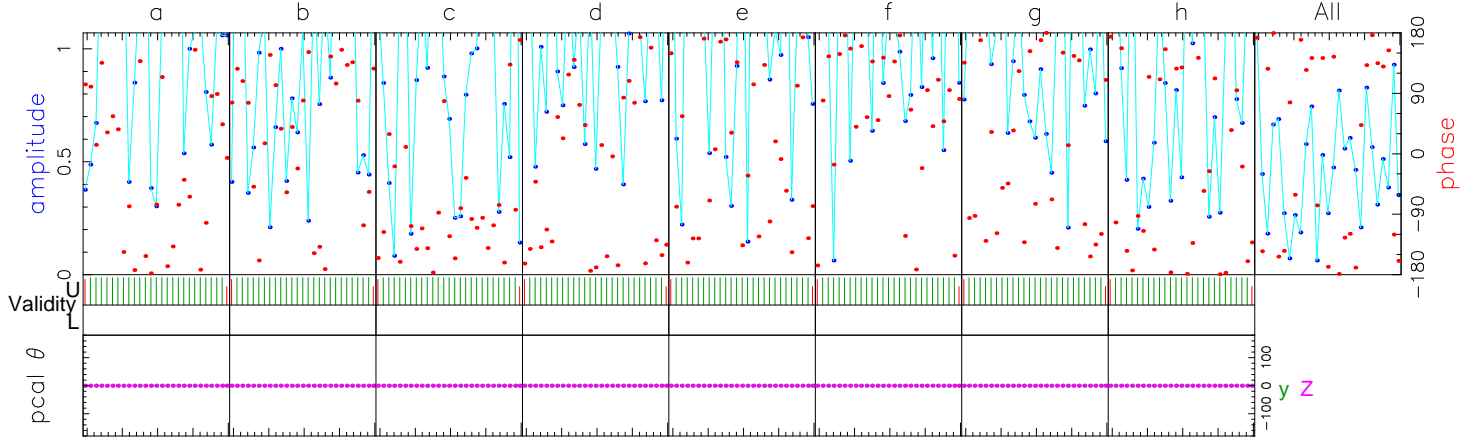


delay rate (ns/s)



Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build  
 2021:302:193655  
 2021:303:114015  
 2021:252:122852  
 RA & Dec (J2000)  
 03h59m29.747267s  
 +50°57'50.161694"

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	172.8	126.7	-115.8	179.1	-164.3	122.0	-153.7	-179.1	Phase	177.3
	0.2	0.5	0.6	0.4	0.4	0.7	0.5	0.5	Ampl.	0.4
	276.3	255.7	255.3	501.4	463.5	254.5	2.7	125.8	Sbd box	254.9
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	3.28569324225E+02		Apriori delay (usec)		3.28575969338E+02		Resid mbdelay (usec)		-6.64511E-03	+/- 1.7E-04
Sband delay (usec)	3.28567758338E+02		Apriori clock (usec)		1.4199085E+00		Resid sbdelay (usec)		-8.21100E-03	+/- 1.4E-03
Phase delay (usec)	3.28575975056E+02		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		5.71839E-06	+/- 5.9E-07
Delay rate (us/s)	-9.41965512589E-01		Apriori rate (us/s)		-9.41965383620E-01		Resid rate (us/s)		-1.28969E-07	+/- 2.5E-08
Total phase (deg)			Apriori accel (us/s/s)		-2.44264386706E-05		Resid phase (deg)		177.3	+/- 18.4

ph/seg (deg) 56.8 47.7 Search (256X32) 0.338 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5  
 amp/seg (%) 81.3 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) 43.4 26.0 Inc. seg. avg. 0.361 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008  
 amp/frq (%) 49.7 45.4 Inc. frq. avg. 0.429 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t\_cohere infinite dr window (ns/s) -0.011 0.011  
 y: az 308.3 el 58.1 pa 97.9 Z: az 77.3 el 55.6 pa -50.2 u,v (fr/asec) 8539.886 -3891.659 simultaneous interpolator  
 Control file: cf\_1234\_gmva Input file: /Exps/c211c/v1/1234/No0029/yZ..1WZMQH Output file: /Exps/c211c/v1/1234/No0029/yZ.W.137.1WZMQH

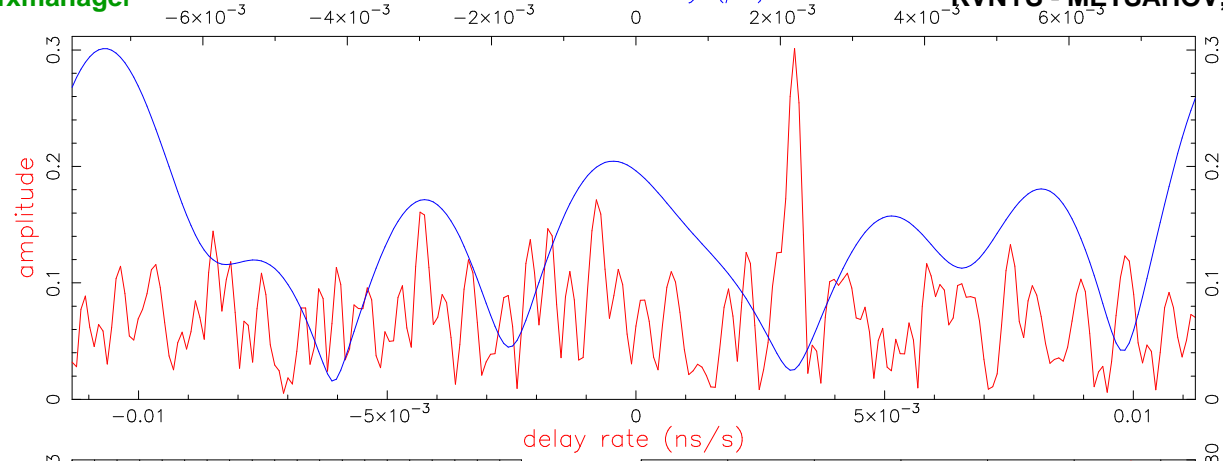
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

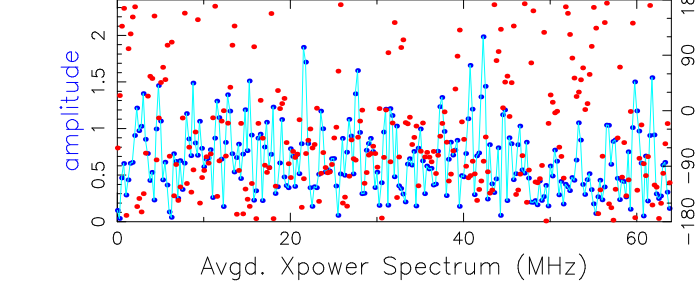
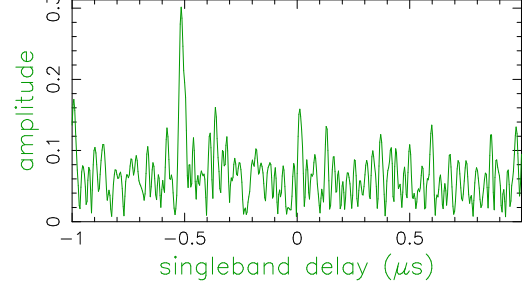
NRAO150.1WZMQH, No0029, yZ

KVNYS - METSAHOV, fgroup W, pol RL

multiband delay ( $\mu$ s)

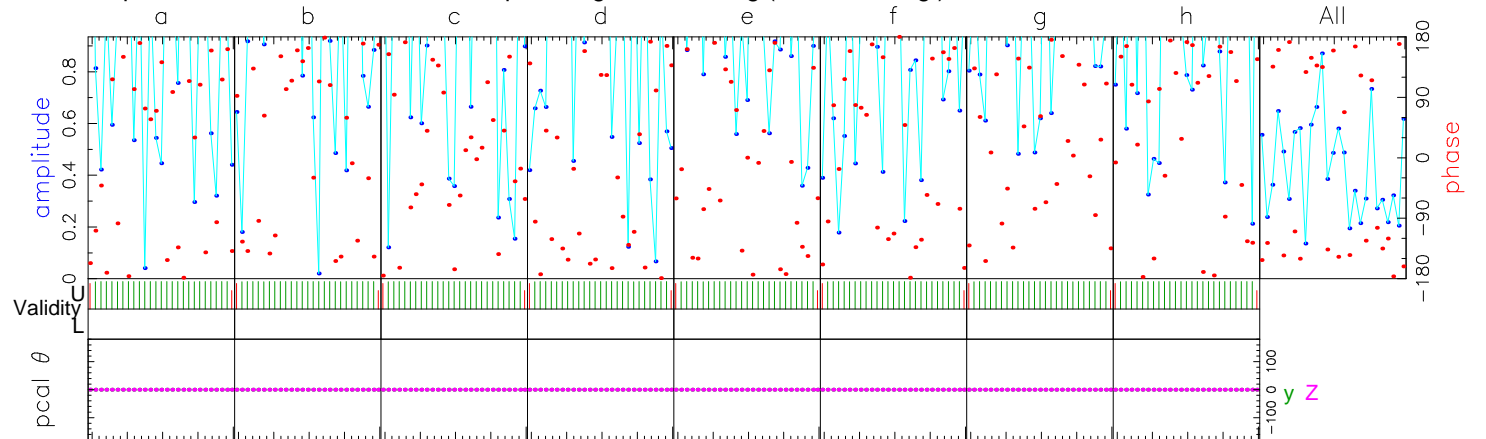


Fringe quality 0  
 SNR 5.3  
 Int time 40.812  
 Amp 0.312  
 Phase 178.0  
 PFD 9.8e-01  
 Delays (us)  
 SBD -0.515301  
 MBD -0.007347  
 Fringe rate (Hz) 0.277974  
 Ion TEC 0.000  
 Ref freq (MHz) 86140.0000  
 AP (sec) 0.512  
 Exp. c211c  
 Exper # 16383  
 Yr:day 2021:116  
 Start 080618.88  
 Stop 080659.84  
 FRT 080330.00  
 Corr/FF/build 2021:302:193655  
 2021:303:114016  
 2021:252:122852  
 RA & Dec (J2000) 03h59m29.747267s +50°57'50.161694"



Avgd. Xpower Spectrum (MHz)

Amp. and Phase vs. time for each freq., 27 segs, 3 APs / seg (1.54 sec / seg.), time ticks 2 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
U/L	80/0	80/0	80/0	80/0	80/0	80/0	80/0	80/0				
y	1000	1000	1000	1000	1000	1000	1000	1000	APs used			
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
y:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
Z	1000	1000	1000	1000	1000	1000	1000	1000				
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks			
Group delay (usec)(sbd)	3.28052997234E+02		Apriori delay (usec)		3.28575969338E+02		Resid mbdelay (usec)		-7.34710E-03	+/- 2.1E-04		
Sband delay (usec)	3.28060668088E+02		Apriori clock (usec)		1.4199085E+00		Resid sbdelay (usec)		-5.15301E-01	+/- 1.6E-03		
Phase delay (usec)	3.28575975077E+02		Apriori clockrate (us/s)		-1.6000000E-08		Resid phdelay (usec)		5.73847E-06	+/- 7.0E-07		
Delay rate (us/s)	-9.41962156622E-01		Apriori rate (us/s)		-9.41965383620E-01		Resid rate (us/s)		3.22700E-06	+/- 3.0E-08		
Total phase (deg)	177.5		Apriori accel (us/s/s)		-2.44264386706E-05		Resid phase (deg)		178.0	+/- 21.8		
RMS	Theor.		Amplitude		0.312 +/- 0.059		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	47.8	56.5	Search (256X32)		0.291		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
amp/seg (%)	75.9	98.7	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
ph/frq (deg)	85.6	30.8	Inc. seg. avg.		0.300		Sample rate(MISamp/s): 128			dr window (ns/s)	-0.011 0.011	
amp/frq (%)	65.4	53.7	Inc. frq. avg.		0.354		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

y: az 308.3 el 58.1 pa 97.9      Z: az 77.3 el 55.6 pa -50.2      u,v (fr/asec) 8539.886 -3891.659      simultaneous interpolator

Control file: cf\_1234\_gmva    Input file: /Exps/c211c/v1/1234/No0029/yZ..1WZMQH    Output file: /Exps/c211c/v1/1234/No0029/yZ.W.143.1WZMQH