

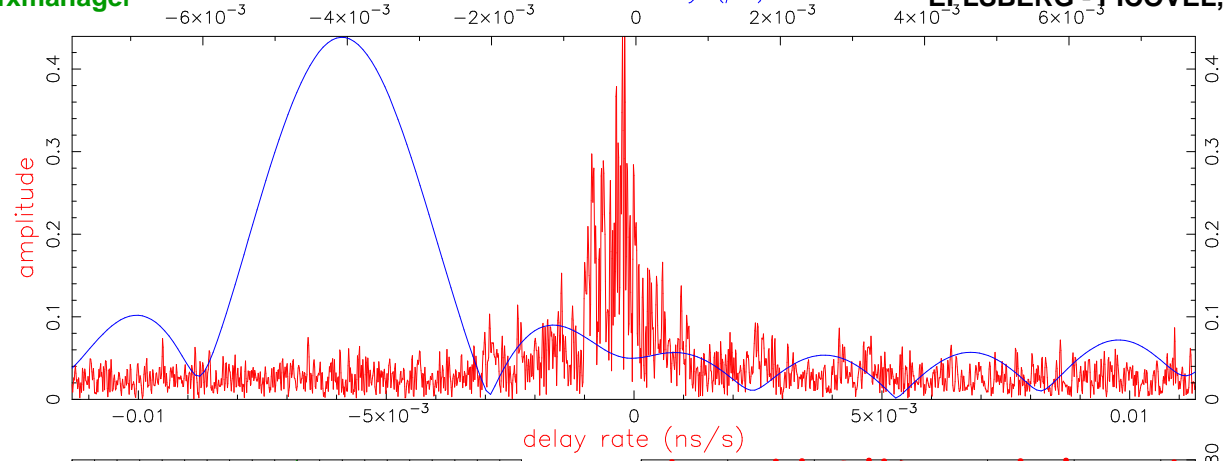
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, BP

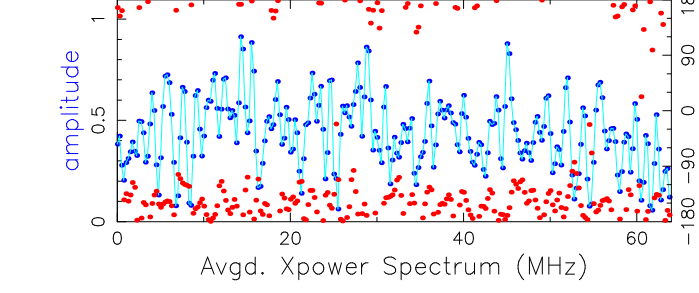
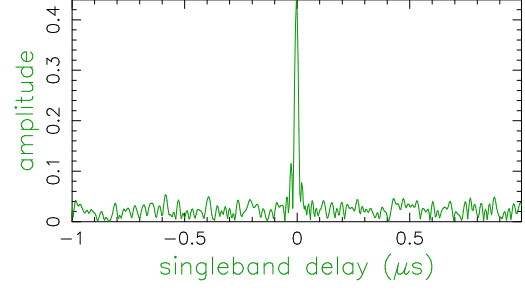
EFLSBERG - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



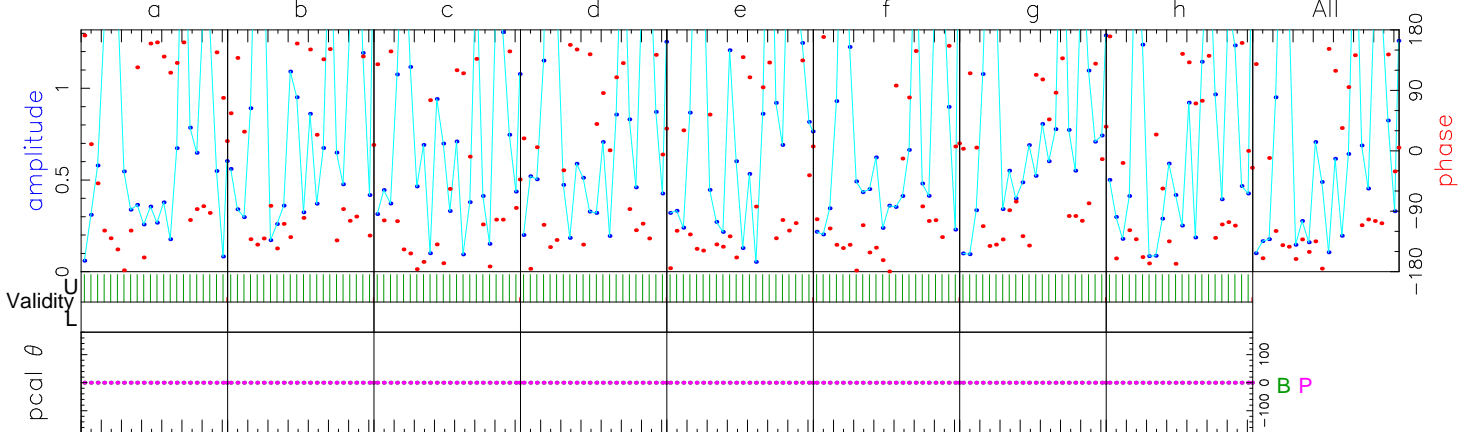
Fringe quality 7

SNR 24.6
 Int time 419.385
 Amp 0.440
 Phase -148.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.003258
 MBD -0.004046
 Fringe rate (Hz)
 -0.019696
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224340
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-142.5	-147.2	-148.0	-151.6	-153.0	-147.7	-139.5	-154.5	Phase	-148.1
	0.5	0.5	0.5	0.4	0.5	0.5	0.3	0.4	Ampl.	0.4
	255.4	255.5	257.0	255.8	256.8	256.1	256.3	254.4	Sbd box	256.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.58199336109E+03		Apriori delay (usec)		4.58199740679E+03		Resid mbdelay (usec)		-0.04570E-03	+/- 4.4E-05
Sband delay (usec)	4.58199414854E+03		Apriori clock (usec)		1.0311442E+01		Resid sbdelay (usec)		-3.25825E-03	+/- 3.5E-04
Phase delay (usec)	4.58199740202E+03		Apriori clockrate (us/s)		2.0000000E-07		Resid phdelay (usec)		-4.77508E-06	+/- 1.5E-07
Delay rate (us/s)	-1.81865519284E-01		Apriori rate (us/s)		-1.81865290631E-01		Resid rate (us/s)		-2.28653E-07	+/- 6.2E-10
Total phase (deg)	75.5		Apriori accel (us/s/s)		-1.21051086906E-05		Resid phase (deg)		-148.1	+/- 4.7

ph/seg (deg) 73.6 11.2 Search (2048X32) 0.420 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 162.0 19.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 5.5 6.6 Inc. seg. avg. 0.718 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 14.7 11.5 Inc. frq. avg. 0.437 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 B: az 62.3 el 29.8 pa -47.2 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 1337.081 343.269 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/BP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/BP.W.23.1IFSML

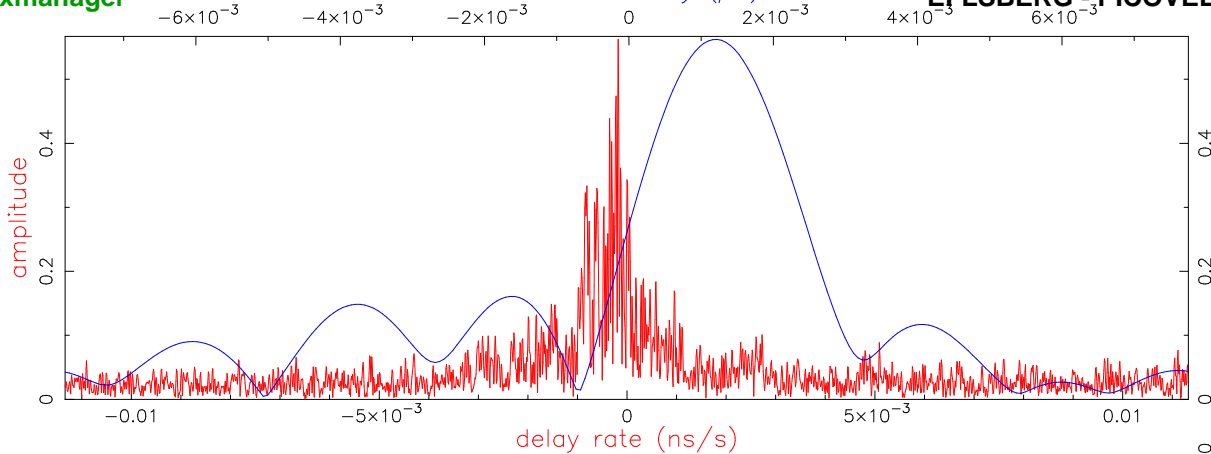
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, BP

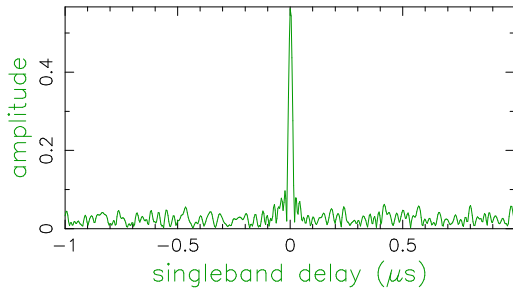
EFLSBERG - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

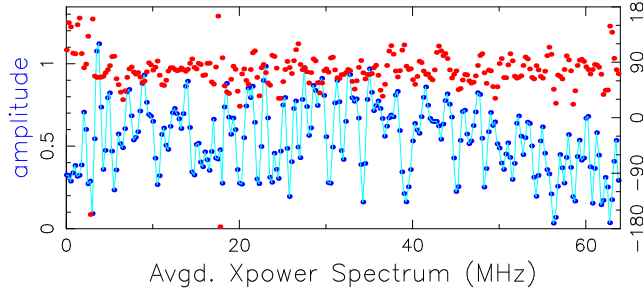


Fringe quality 6

SNR 31.8
Int time 419.385
Amp 0.567
Phase 75.3
PFD 0.0e+00
Delays (us)
SBD 0.001218
MBD 0.001233
Fringe rate (Hz)
-0.015679
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

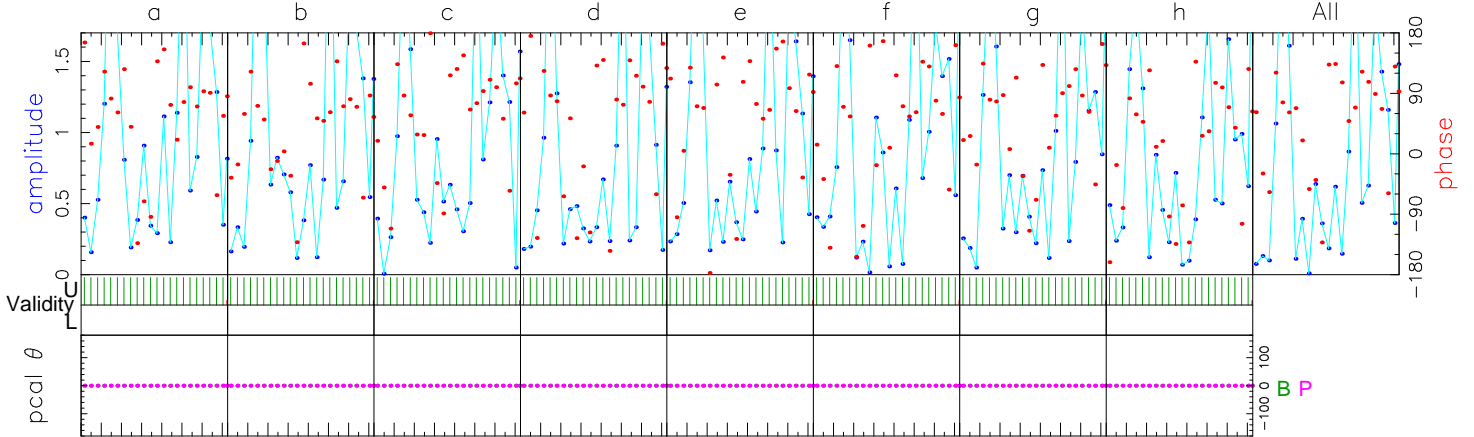


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 090000.00
Stop 090659.84
FRT 090330.00
Corr/FF/build
2021:019:223932
2021:019:224336
2020:247:085004
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:P	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		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	4.58199863942E+03	Apriori delay (usec)	4.58199740679E+03	Resid mbdelay (usec)	1.23263E-03	+/-	3.4E-05
Sband delay (usec)	4.58199862454E+03	Apriori clock (usec)	1.0311442E+01	Resid sbdelay (usec)	1.21775E-03	+/-	2.7E-04
Phase delay (usec)	4.58199740922E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	2.42935E-06	+/-	1.2E-07
Delay rate (us/s)	-1.81865472643E-01	Apriori rate (us/s)	-1.81865290631E-01	Resid rate (us/s)	-1.82012E-07	+/-	4.8E-10
Total phase (deg)	298.9	Apriori accel (us/s/s)	-1.21051086906E-05	Resid phase (deg)	75.3	+/-	3.6

ph/seg (deg)	RMS 73.5	Theor. 8.7	Amplitude 0.567 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	144.2	15.1	Search (2048X32) 0.521	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000		
ph/frq (deg)	13.5	5.1	Inc. seg. avg. 0.798	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008	
amp/frq (%)	13.0	8.9	Inc. frq. avg. 0.571	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011		
				Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC) 0.00 0.00

B: az 62.3 el 29.8 pa -47.2 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 1337.081 343.269 simultaneous interpolator

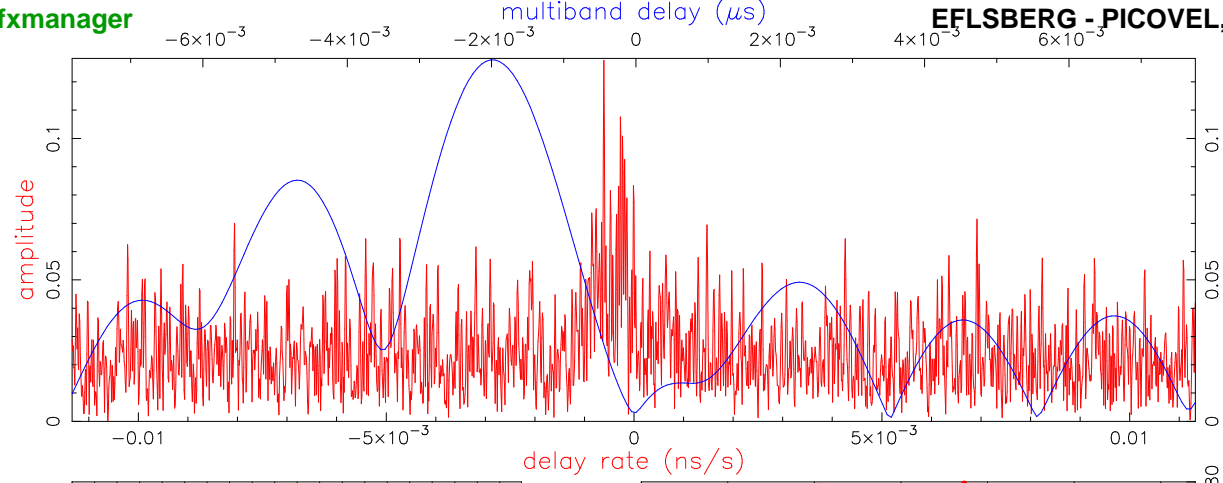
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/BP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/BP.W.3.1IFSML

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, BP

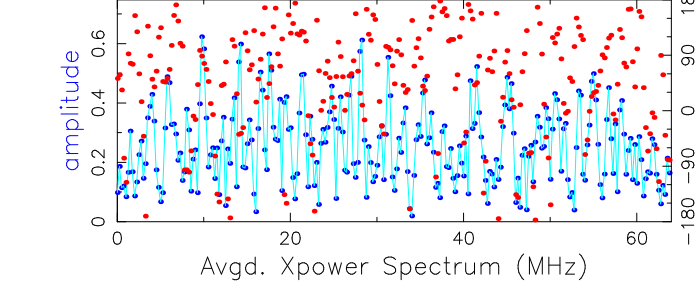
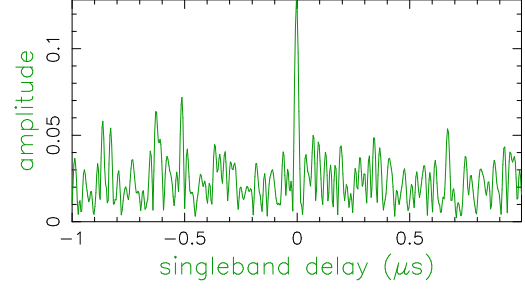
EFLSBERG - PICOVEL, fgroup W, pol LR



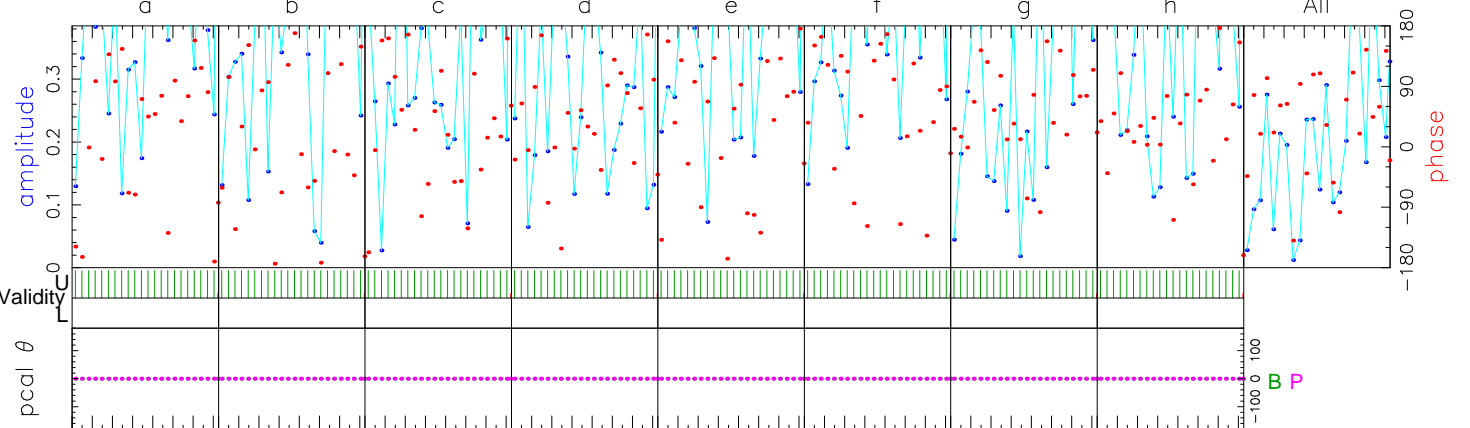
Fringe quality 0

SNR 7.2
 Int time 419.385
 Amp 0.128
 Phase 64.5
 PFD 2.2e-04
 Delays (us)
 SBD -0.003063
 MBD -0.001938
 Fringe rate (Hz)
 -0.052095
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224343
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	77.9	47.5	40.0	44.5	105.6	112.5	70.8	37.4	Phase	64.5
	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Ampl.	0.1
	173.0	306.1	266.0	69.0	460.9	34.4	89.8	254.9	Sbd box	256.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	4.58199546839E+03		Apriori delay (usec)		4.58199740679E+03		Resid mbdelay (usec)		-1.93840E-03	+/- 1.5E-04
Sband delay (usec)	4.58199434329E+03		Apriori clock (usec)		1.0311442E+01		Resid sbdelay (usec)		-3.06350E-03	+/- 1.2E-03
Phase delay (usec)	4.58199740887E+03		Apriori clockrate (us/s)		2.0000000E-07		Resid phdelay (usec)		2.07966E-06	+/- 5.1E-07
Delay rate (us/s)	-1.81865895400E-01		Apriori rate (us/s)		-1.81865290631E-01		Resid rate (us/s)		-6.04769E-07	+/- 2.1E-09
Total phase (deg)	288.1		Apriori accel (us/s/s)		-1.21051086906E-05		Resid phase (deg)		64.5	+/- 16.0

ph/seg (deg) RMS Theor. Amplitude 0.128 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 72.4 38.3 Search (2048X32) 0.120 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 120.3 66.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 32.2 22.6 Inc. seg. avg. 0.165 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.1 39.4 Inc. frq. avg. 0.133 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 62.3 el 29.8 pa -47.2 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 1337.081 343.269 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/BP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/BP.W.41.1IFSML

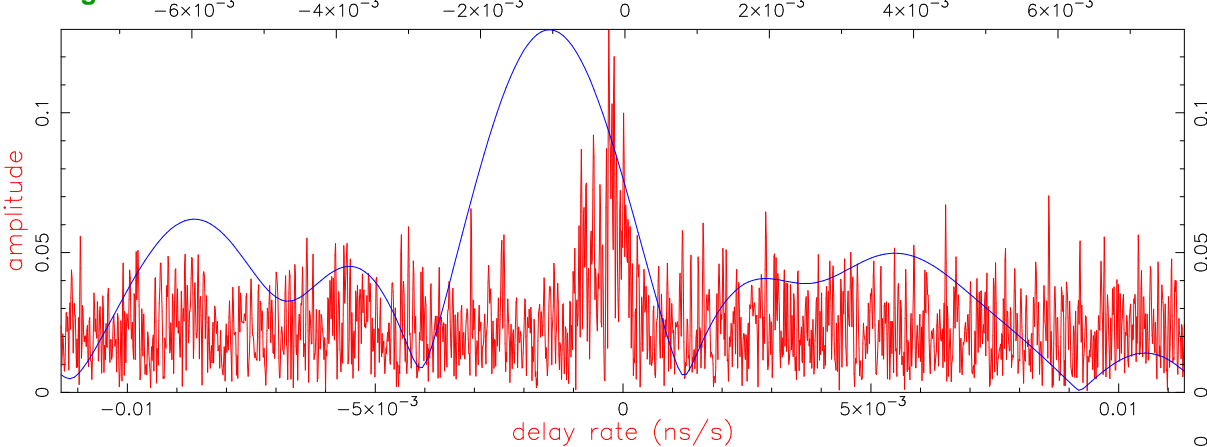
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, BP

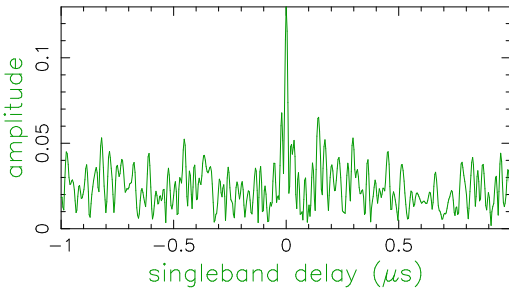
EFLSBERG - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

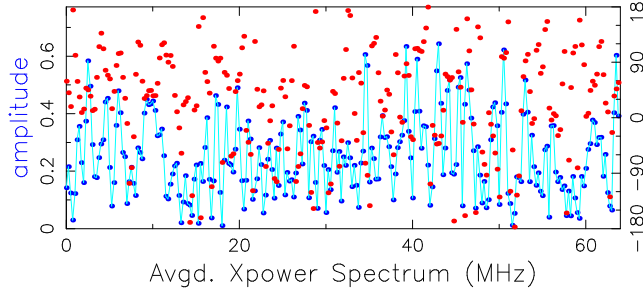


Fringe quality 0

SNR 7.3
 Int time 419.385
 Amp 0.130
 Phase 65.8
 PFD 1.1e-04
 Delays (us)
 SBD 0.000321
 MBD -0.001036
 Fringe rate (Hz)
 -0.025150
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

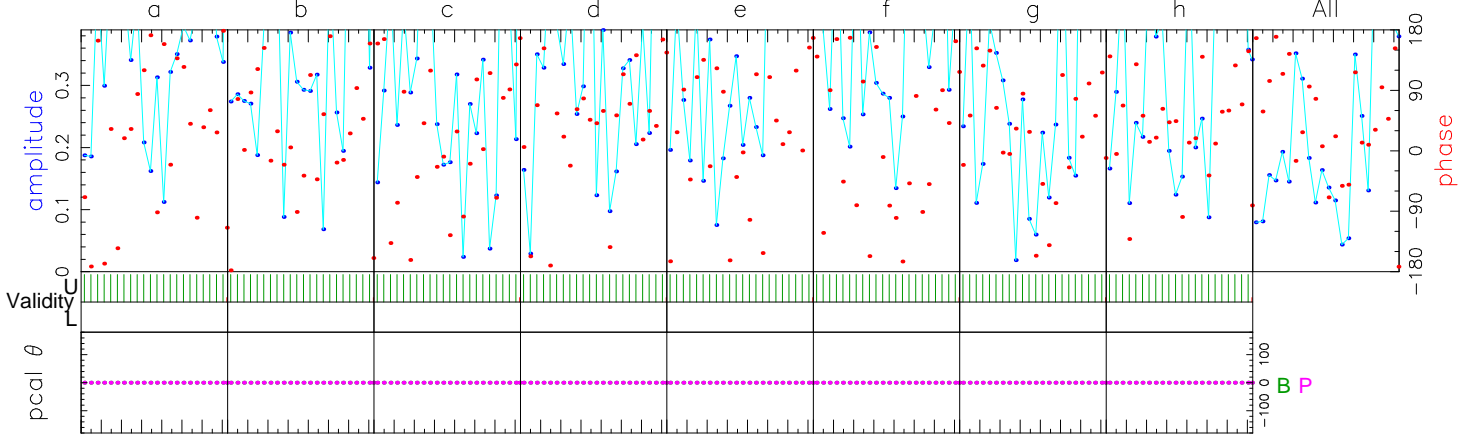


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224346
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



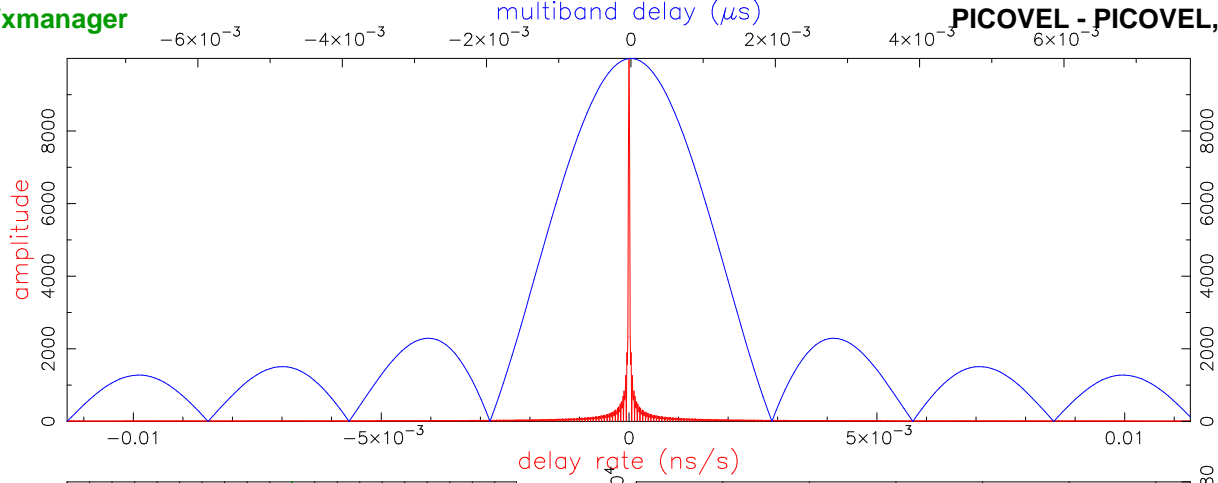
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	79.2	47.4	75.3	65.1	67.9	173.5	62.0	59.8	Phase	65.8
	0.1	0.1	0.1	0.2	0.1	0.0	0.2	0.2	Ampl.	0.1
	6.4	96.1	330.3	256.6	365.3	344.0	257.9	256.8	Sbd box	257.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	4.58199637045E+03	Apriori delay (usec)	4.58199740679E+03	Resid mbdelay (usec)	-1.03634E-03	+/-	1.5E-04
Sband delay (usec)	4.58199772754E+03	Apriori clock (usec)	1.0311442E+01	Resid sbdelay (usec)	3.20750E-04	+/-	1.2E-03
Phase delay (usec)	4.58199740891E+03	Apriori clockrate (us/s)	2.0000000E-07	Resid phdelay (usec)	2.12203E-06	+/-	5.1E-07
Delay rate (us/s)	-1.81865582603E-01	Apriori rate (us/s)	-1.81865290631E-01	Resid rate (us/s)	-2.91972E-07	+/-	2.1E-09
Total phase (deg)	289.4	Apriori accel (us/s/s)	-1.21051086906E-05	Resid phase (deg)	65.8	+/-	15.8

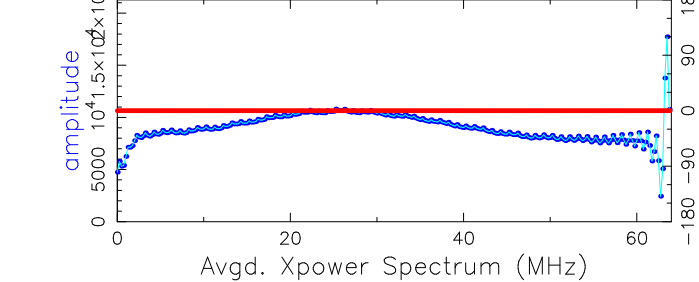
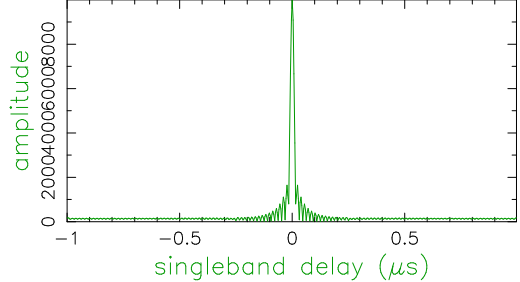
ph/seg (deg)	RMS 71.2	Theor. 37.8	Amplitude Search (2048X32)	0.130 +/- 0.018	0.124	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	152.4	66.0	Interp.	0.000	0.124	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	45.2	22.3	Inc. seg. avg.	0.193	0.129	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	45.9	38.9	Inc. frq. avg.	0.129	0.129	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 62.3 el 29.8 pa -47.2 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 1337.081 343.269 simultaneous interpolator

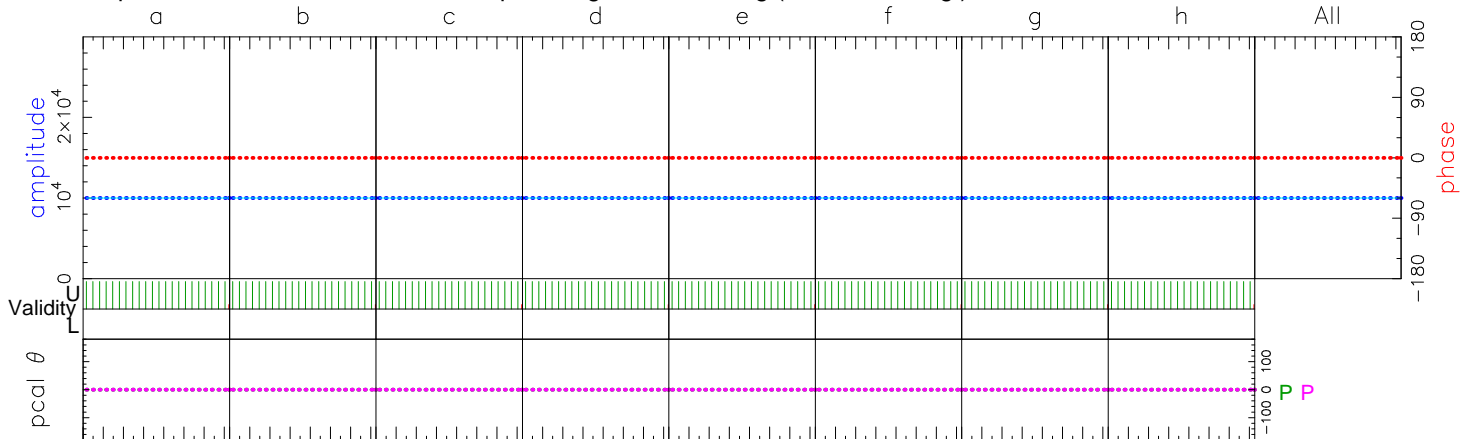
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/BP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/BP.W.59.1IFSML



Fringe quality 9
SNR 560015.1
Int time 419.405
Amp 9999.667
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 090000.00
Stop 090659.84
FRT 090330.00
Corr/FF/build
2021:019:223932
2021:019:224340
2020:247:085004
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

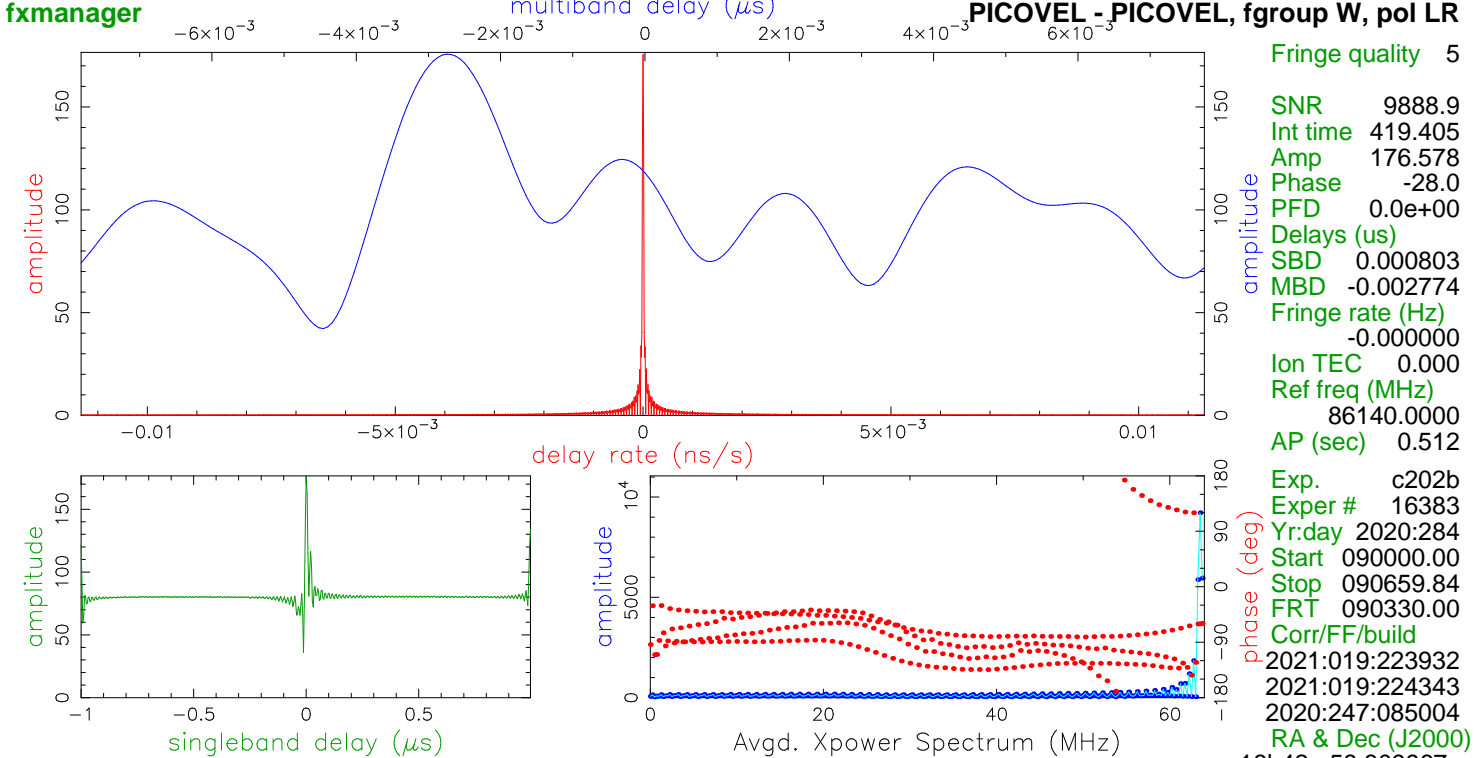
ph/seg (deg)	0.0	RMS	Theor.	Amplitude	9999.667 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.0	0.0	0.0	Search (2048X32)	9999.667	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	0.0	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	0.0	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	9999.667	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Mk4/DiFX fourfit 3.21 rev 2937

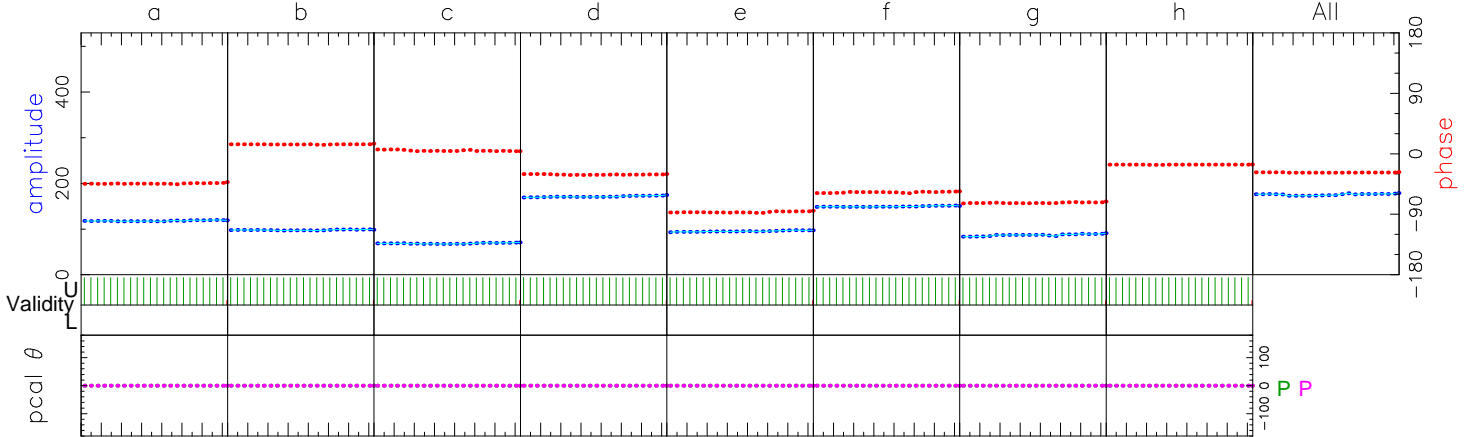
fxmanager

3C345.1IFSML, No0080, PP

PICOVEL - PICOVEL, fgroup W, pol LR

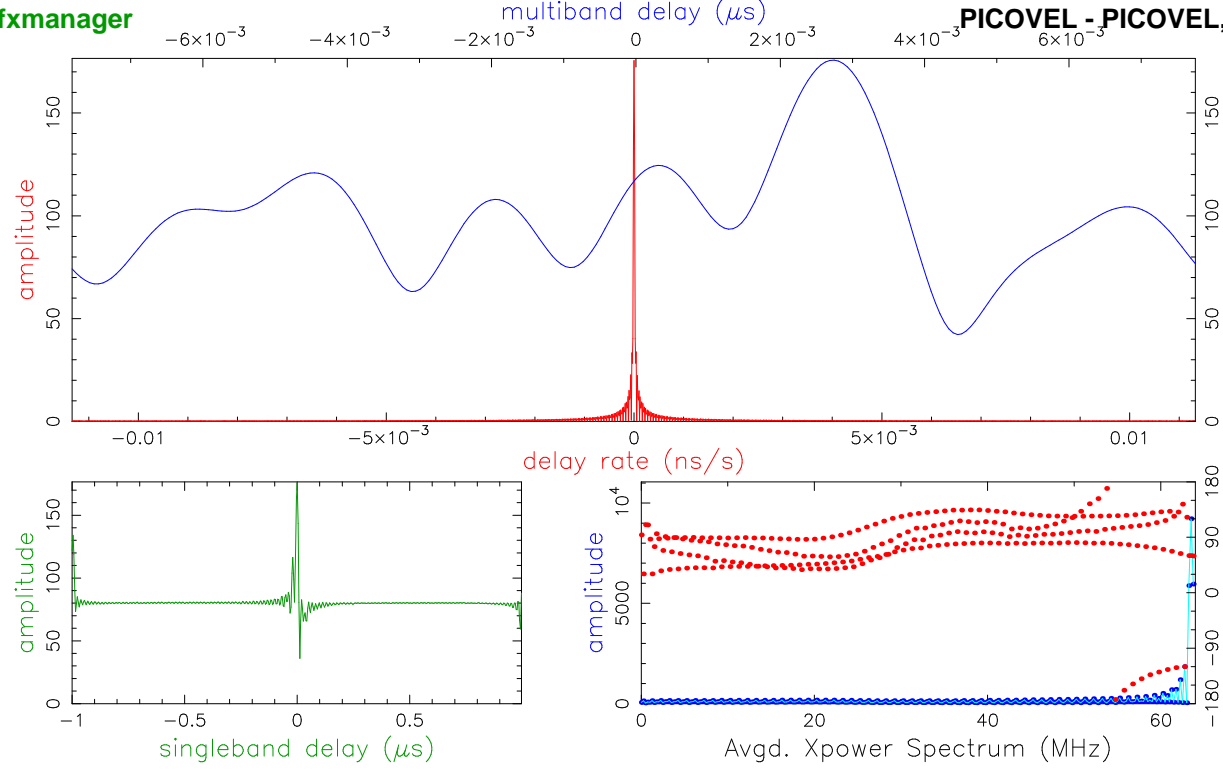


Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-44.3	14.0	4.8	-30.9	-86.8	-57.3	-72.9	-16.2	Phase	-28.0
	118.1	98.0	68.7	171.2	95.3	149.5	86.9	764.7	Ampl.	194.0
	253.9	256.2	250.9	257.3	257.1	255.7	255.5	257.9	Sbd box	257.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-2.77415625000E-03								Resid mbdelay (usec)	-2.77416E-03 +/- 1.1E-07
Sband delay (usec)	8.02750000000E-04								Resid sbdelay (usec)	8.02750E-04 +/- 8.7E-07
Phase delay (usec)	-9.01375381598E-07								Resid phdelay (usec)	-9.01375E-07 +/- 3.7E-10
Delay rate (us/s)	-7.08557619584E-13								Resid rate (us/s)	-7.08558E-13 +/- 1.5E-12
Total phase (deg)			-28.0						Resid phase (deg)	-28.0 +/- 0.0
									PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
									PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
									Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
									Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
									Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

ph/seg (deg) 0.2 0.0 Search (2048X32) 172.459 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.1 0.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 40.0 0.0 Inc. seg. avg. 175.587 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 123.8 0.0 Inc. frq. avg. 194.034 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 P: az 52.1 el 16.3 pa -55.5 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/PP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/PP.W.44.1IFSML

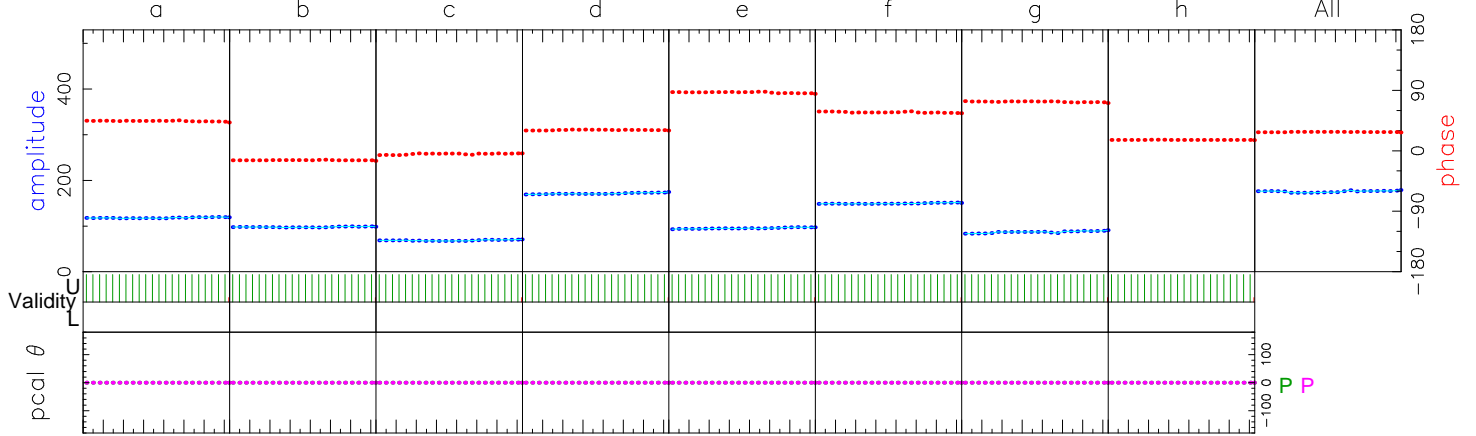


Fringe quality 5

SNR 9888.9
Int time 419.405
Amp 176.578
Phase 28.0
PFD 0.0e+00
Delays (us)
SBD -0.000803
MBD 0.002774
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 090000.00
Stop 090659.84
FRT 090330.00
Corr/FF/build
2021:019:223932
2021:019:224347
2020:247:085004
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"

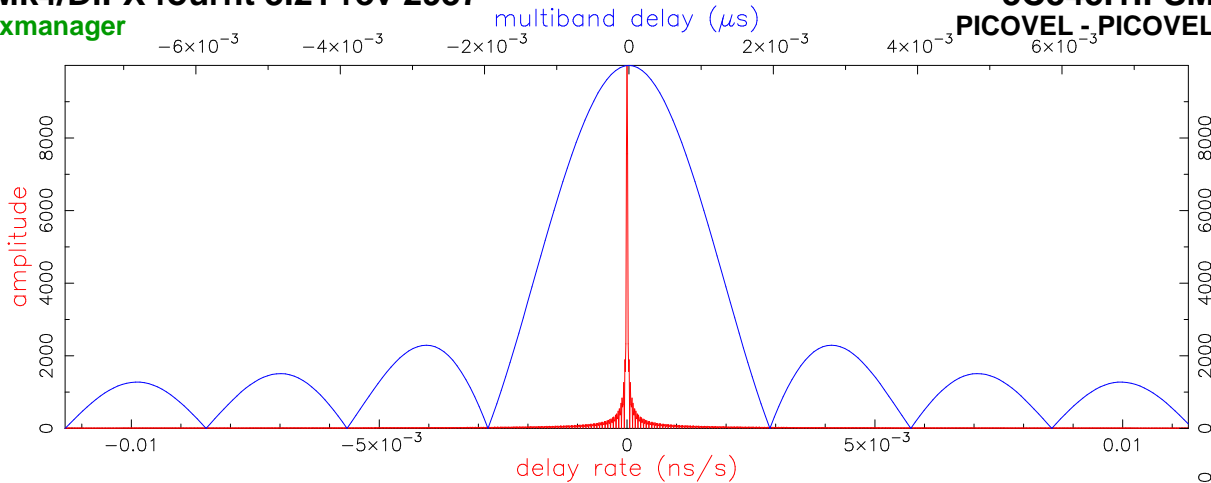
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



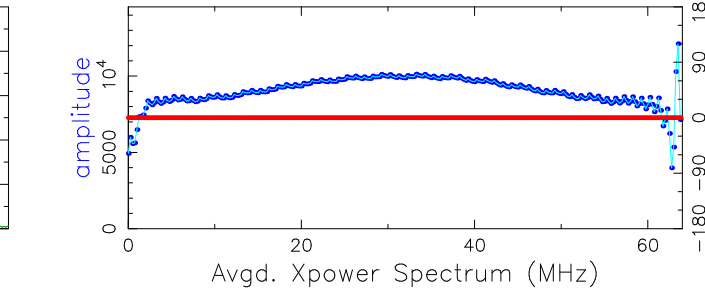
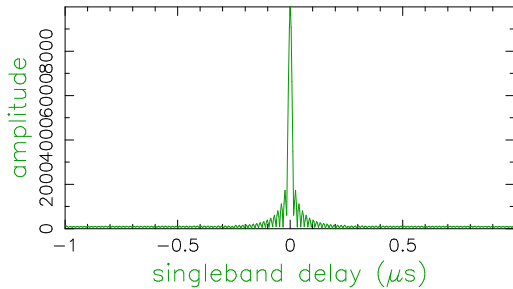
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	2.77415625000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	2.77416E-03	+/-	1.1E-07
Sband delay (usec)	-8.02750000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-8.02750E-04	+/-	8.7E-07
Phase delay (usec)	9.01375381516E-07	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	9.01375E-07	+/-	3.7E-10
Delay rate (us/s)	7.08557619584E-13	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	7.08558E-13	+/-	1.5E-12
Total phase (deg)	28.0	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	28.0	+/-	0.0

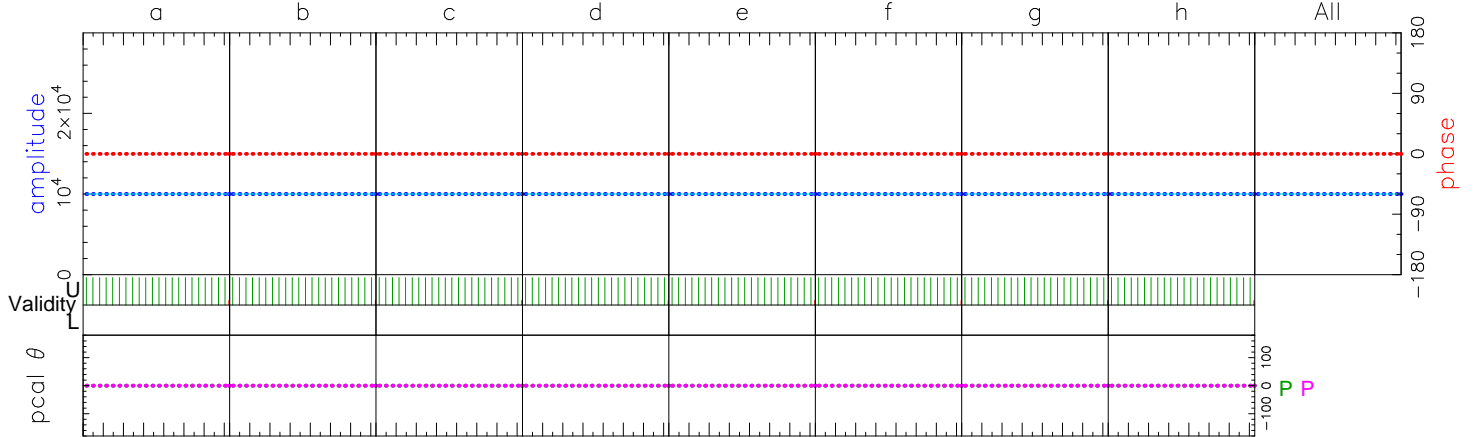
ph/seg (deg)	0.2	RMS	0.0	Theor.	0.0	Amplitude	176.578 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	1.1	Search (2048X32)	172.459	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000	
ph/frq (deg)	40.0	Inc. seg. avg.	175.587	Inc. frq. avg.	194.034	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	123.8	Inc. frq. avg.	194.034	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	dr window (ns/s)	-0.011	0.011
P:	az 52.1 el 16.3 pa -55.5	u,v (fr/asec)	0.000	0.000		ion window (TEC)	0.00	0.00	simultaneous interpolator		



Fringe quality 9
SNR 560015.1
Int time 419.405
Amp 9999.667
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Yr:day 16383
Start 2020:284
Stop 2021:019:223932
FRT 2021:019:224337
2020:247:085004
RA & Dec (J2000) 16h42m58.809967s +39°48'36.993984"



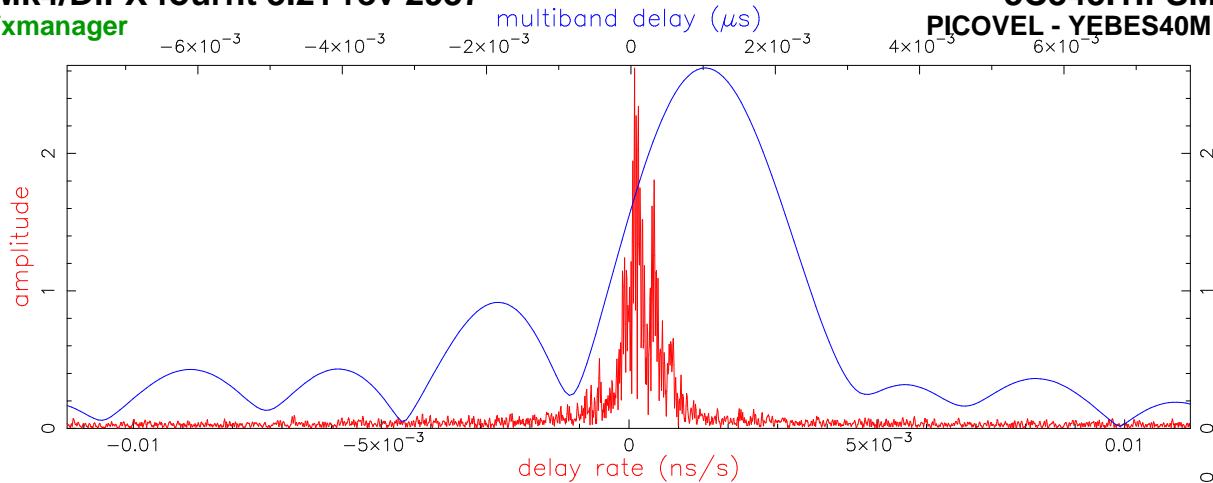
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

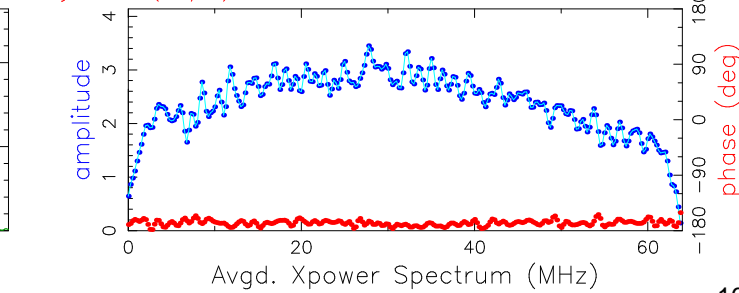
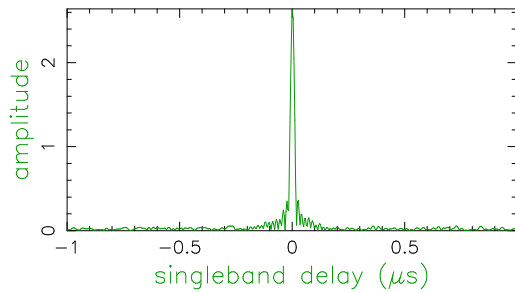
Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	6.6E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

	RMS	Theor.	Amplitude	9999.667 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.0	0.0	Search (2048X32)	9999.667	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.0	0.0	Inc. frq. avg.	9999.667	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00



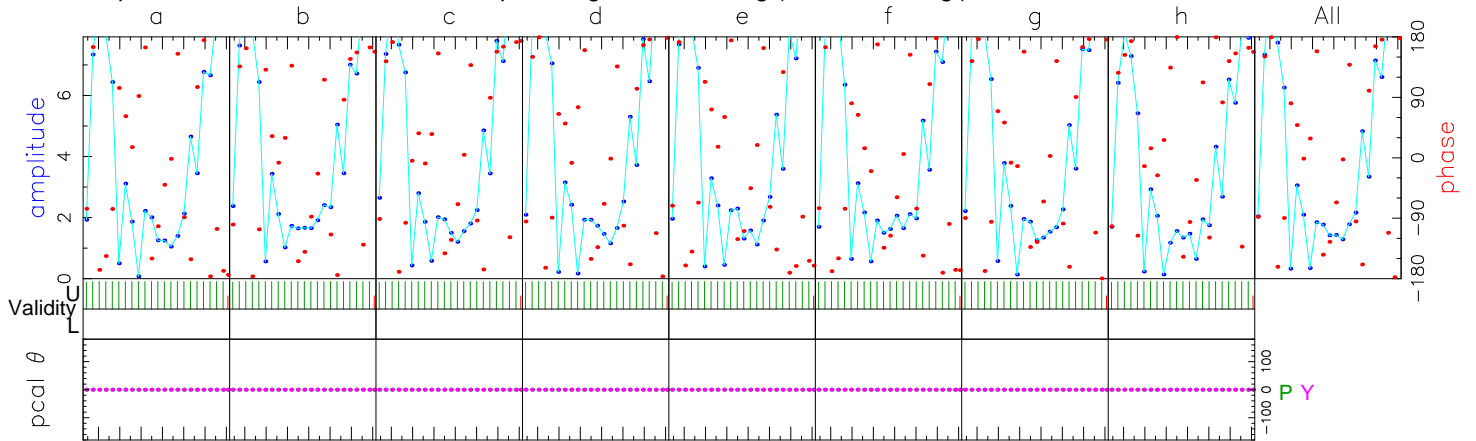
Fringe quality 4

SNR 144.8
Int time 401.967
Amp 2.641
Phase -167.3
PFD 0.0e+00
Delays (us)
SBD 0.001152
MBD 0.001056
Fringe rate (Hz)
0.009608
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 090016.90
Stop 090659.84
FRT 090330.00
Corr/FF/build
2021:019:223932
2021:019:224340
2020:247:085004
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-157.8	175.1	-173.4	-166.8	-145.0	-155.4	-170.8	170.9	Phase	-167.3
	2.6	2.7	2.7	2.9	2.9	2.7	2.8	2.3	Ampl.	2.7
	257.5	257.1	257.5	257.4	257.1	257.1	257.0	256.9	Sbd box	257.3
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.12791184882E+02		Apriori delay (usec)		-8.12792241201E+02		Resid mbdelay (usec)		1.05632E-03	+/- 7.5E-06
Sband delay (usec)	-8.12791089451E+02		Apriori clock (usec)		-1.3894214E+01		Resid sbdelay (usec)		1.15175E-03	+/- 6.0E-05
Phase delay (usec)	-8.12792246596E+02		Apriori clockrate (us/s)		-5.2000000E-07		Resid phdelay (usec)		-5.39528E-06	+/- 2.6E-08
Delay rate (us/s)	4.39537860111E-02		Apriori rate (us/s)		4.39536744713E-02		Resid rate (us/s)		1.11540E-07	+/- 1.1E-10
Total phase (deg)			Apriori accel (us/s/s)		8.65375277852E-07		Resid phase (deg)		-167.3	+/- 0.8

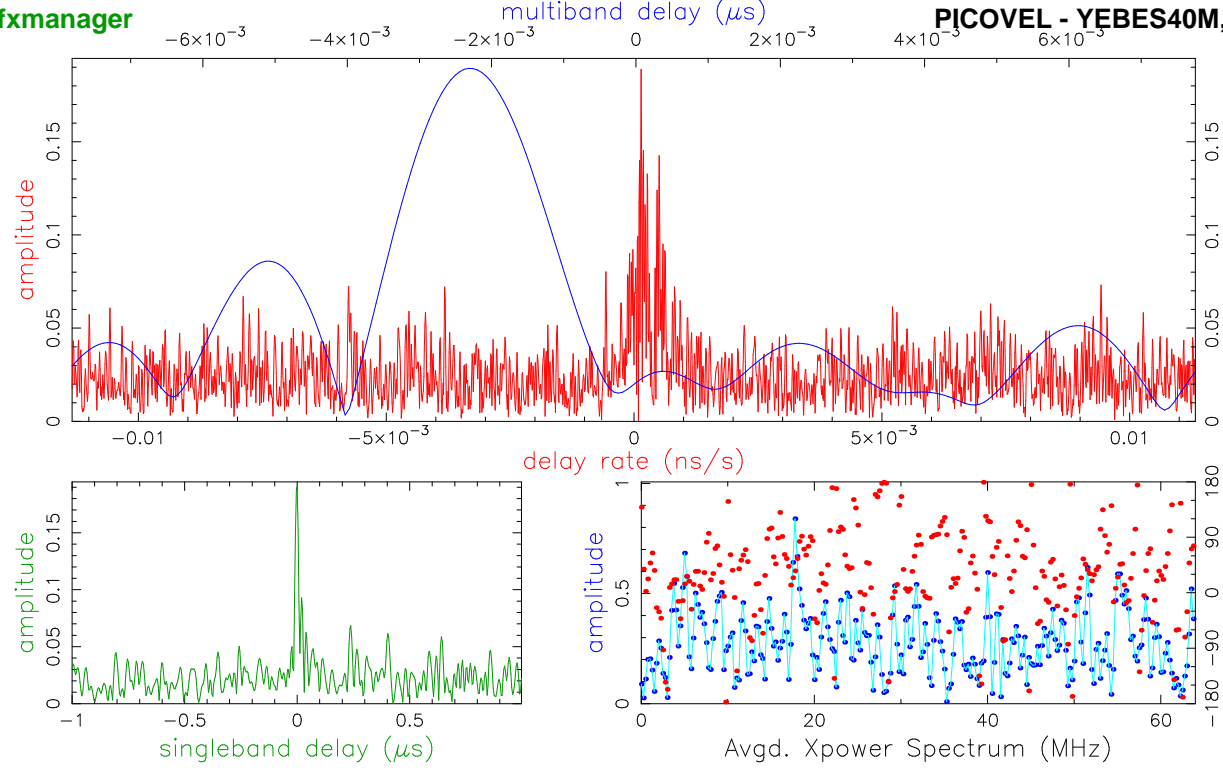
RMS Theor. Amplitude 2.641 +/- 0.018
 ph/seg (deg) 85.5 1.9 Search (2048X32) 2.601 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 131.0 3.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 16.1 1.1 Inc. seg. avg. 4.211 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 6.7 2.0 Inc. frq. avg. 2.699 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 P: az 52.1 el 16.3 pa -55.5 Y: az 53.1 el 18.6 pa -52.8 u,v (fr/asec) -326.801 -258.506 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/PY..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/PY.W.26.1IFSML

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, PY

PICOVEL - YEBES40M, fgroup W, pol LR

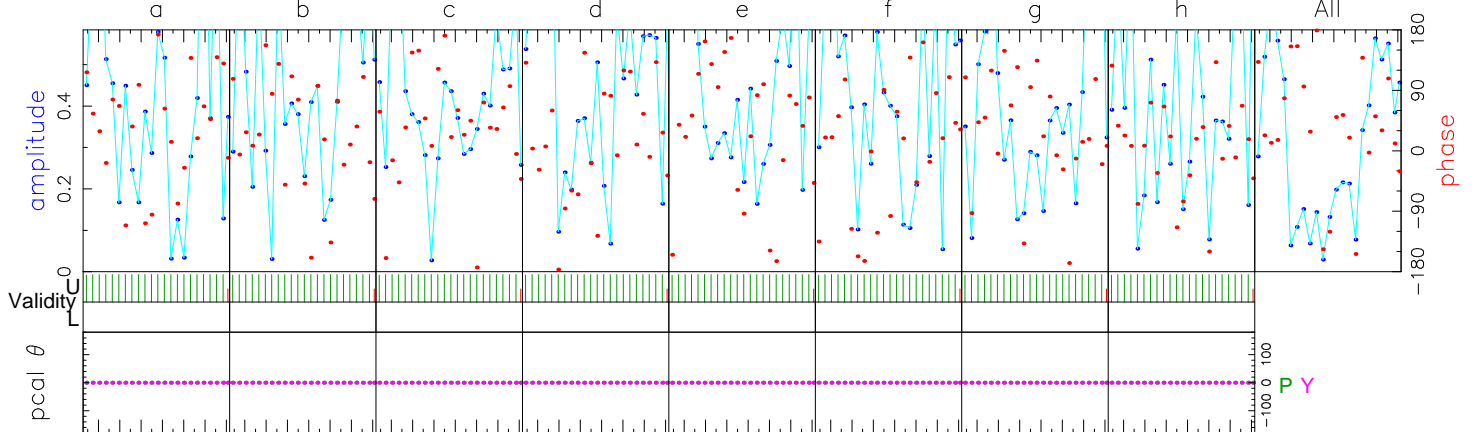


Fringe quality 9

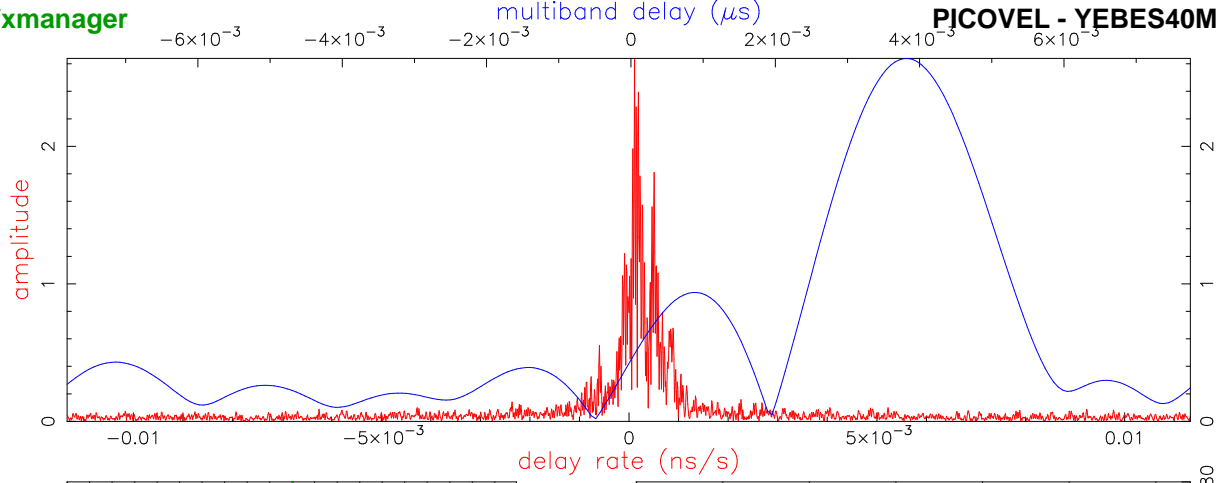
SNR 10.7
 Int time 401.967
 Amp 0.195
 Phase 45.7
 PFD 6.1e-18
 Delays (us)
 SBD -0.001808
 MBD -0.002216
 Fringe rate (Hz) 0.012505
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090016.90
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224344
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

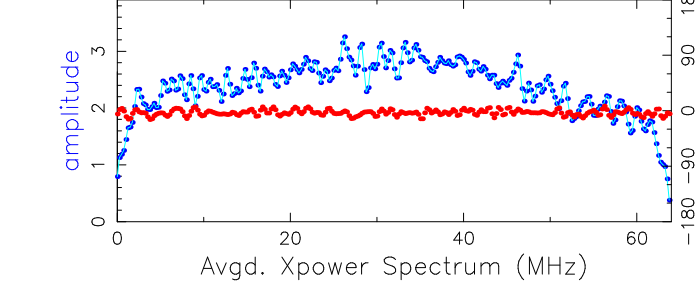
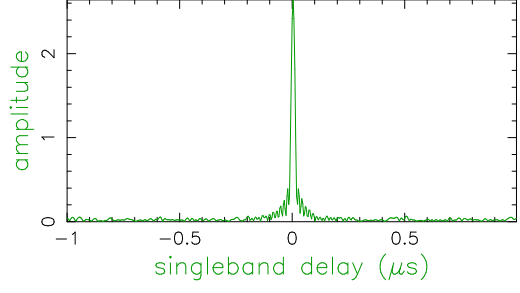
Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



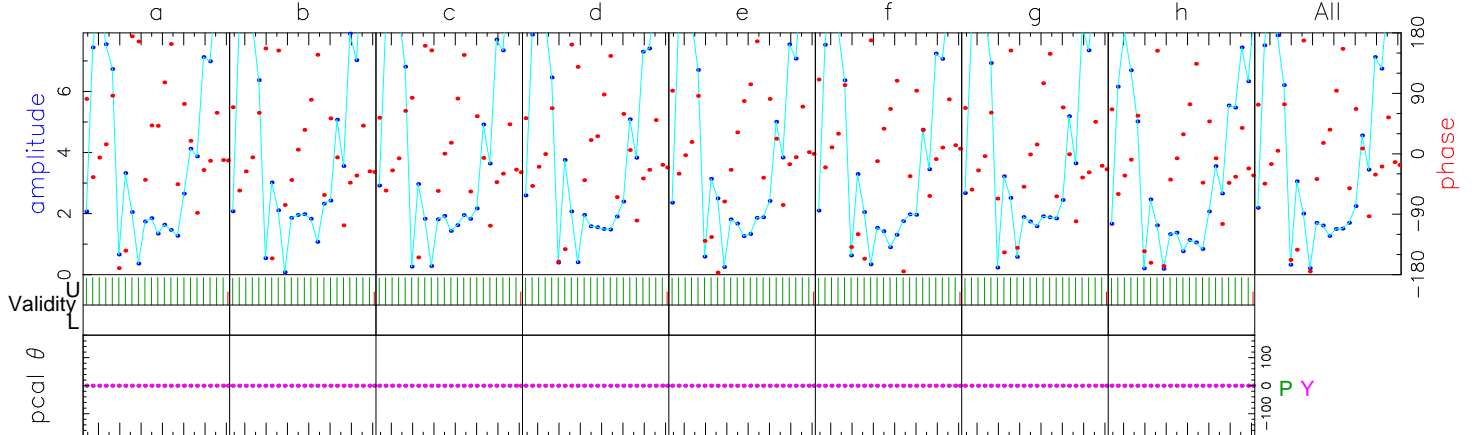
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All		
	66.8	34.2	43.6	24.4	69.6	67.3	51.1	22.1	Phase	45.7		
	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2		
	157.2	262.1	257.1	256.7	255.7	25.9	256.0	256.7	Sbd box	256.5		
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used			
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs			
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase			
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC			
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp			
Y	1000	1000	1000	1000	1000	1000	1000	1000				
P	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)	-8.12794456977E+02		Apriori delay (usec)		-8.12792241201E+02		Resid mbdelay (usec)		-2.21578E-03	+/- 1.0E-04		
Sband delay (usec)	-8.12794049451E+02		Apriori clock (usec)		-1.3894214E+01		Resid sbdelay (usec)		-1.80825E-03	+/- 8.1E-04		
Phase delay (usec)	-8.12792239727E+02		Apriori clockrate (us/s)		-5.2000000E-07		Resid phdelay (usec)		1.47465E-06	+/- 3.5E-07		
Delay rate (us/s)	4.39538196449E-02		Apriori rate (us/s)		4.39536744713E-02		Resid rate (us/s)		1.45174E-07	+/- 1.5E-09		
Total phase (deg)			Apriori accel (us/s/s)		8.65375277852E-07		Resid phase (deg)		45.7	+/- 10.7		
	RMS	Theor.	Amplitude	0.195 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
ph/seg (deg)	83.6	25.7	Search (2048X32)	0.186		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000		
amp/seg (%)	115.2	44.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	21.0	15.2	Inc. seg. avg.	0.277		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011		
amp/frq (%)	15.5	26.5	Inc. frq. avg.	0.192		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
P: az 52.1 el 16.3 pa -55.5	Y: az 53.1 el 18.6 pa -52.8		u, v (fr/asec) -326.801 -258.506						simultaneous interpolator			
Control file: cf_1234_gmva	Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/PY..1IFSML		Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/PY.W.47.1IFSML									



Fringe quality 4
SNR 144.7
Int time 401.967
Amp 2.639
Phase -2.1
PFD 0.0e+00
Delays (us)
SBD 0.003898
MBD 0.003815
Fringe rate (Hz) 0.009608
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 090016.90
Stop 090659.84
FRT 090330.00
Corr/FF/build
2021:019:223932
2021:019:224336
2020:247:085004
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-8.12788425851E+02	Apriori delay (usec)	-8.12792241201E+02	Resid mbdelay (usec)	3.81535E-03	+/-	7.5E-06
Sband delay (usec)	-8.12788342951E+02	Apriori clock (usec)	-1.3894214E+01	Resid sbdelay (usec)	3.89825E-03	+/-	6.0E-05
Phase delay (usec)	-8.12792241269E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	-6.81441E-08	+/-	2.6E-08
Delay rate (us/s)	4.39537860125E-02	Apriori rate (us/s)	4.39536744713E-02	Resid rate (us/s)	1.11541E-07	+/-	1.1E-10
Total phase (deg)	-238.7	Apriori accel (us/s/s)	8.65375277852E-07	Resid phase (deg)	-2.1	+/-	0.8

ph/seg (deg)	87.9	RMS	2.639 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	132.2	Theor.		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000	
ph/frq (deg)	15.0	Search (2048X32)	2.607	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	9.9	Interp.	0.000	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011	
		Inc. seg. avg.	4.211	Data rate (Mb/s):	2048	ion window (TEC)	0.00 0.00	
		Inc. frq. avg.	2.706	nlags:	256	t_cohere	infinite	

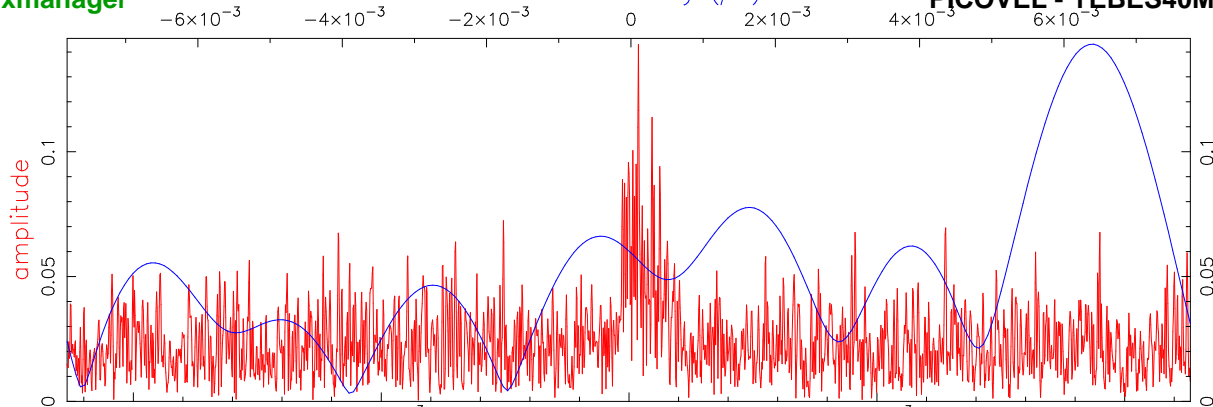
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, PY

PICOVEL - YEBES40M, fgroup W, pol RL

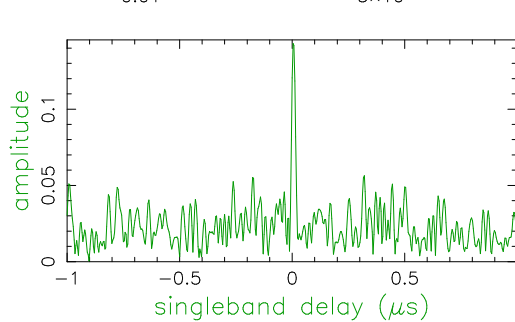
multiband delay (μ s)



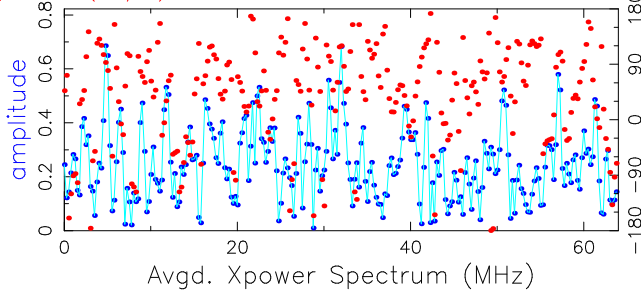
Fringe quality 9

SNR 8.0
 Int time 401.967
 Amp 0.145
 Phase 53.0
 PFD 5.3e-07
 Delays (us)
 SBD 0.005635
 MBD 0.006429
 Fringe rate (Hz)
 0.016352
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

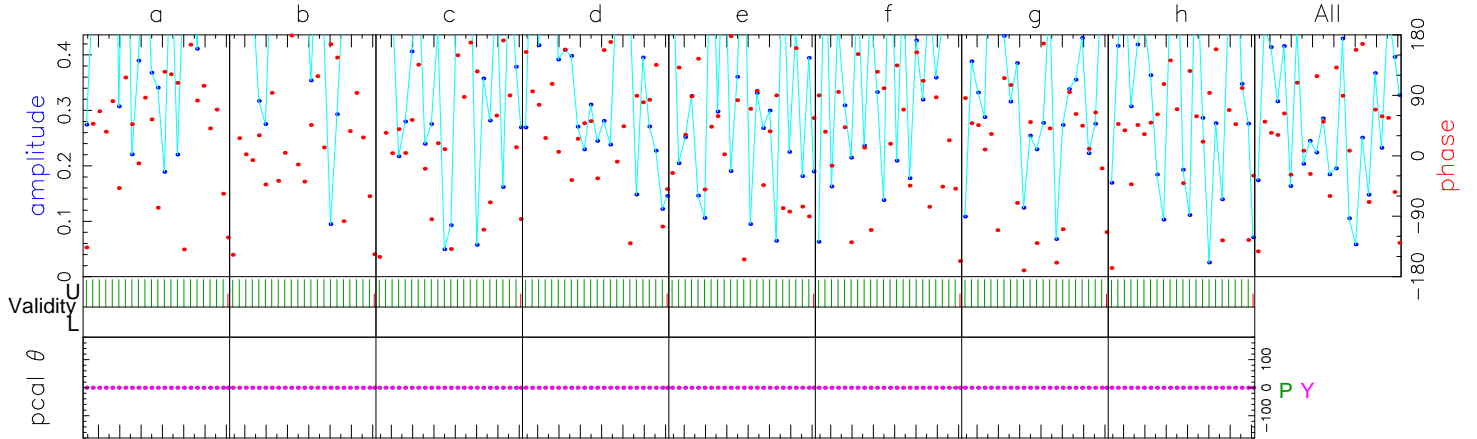
Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090016.90
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224348
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"



delay rate (ns/s)



Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-8.12785811749E+02	Apriori delay (usec)	-8.12792241201E+02	Resid mbdelay (usec)	6.42945E-03	+/-	1.4E-04
Sband delay (usec)	-8.12786606451E+02	Apriori clock (usec)	-1.3894214E+01	Resid sbdelay (usec)	5.63475E-03	+/-	1.1E-03
Phase delay (usec)	-8.12792239492E+02	Apriori clockrate (us/s)	-5.2000000E-07	Resid phdelay (usec)	1.70872E-06	+/-	4.6E-07
Delay rate (us/s)	4.39538642982E-02	Apriori rate (us/s)	4.39536744713E-02	Resid rate (us/s)	1.89827E-07	+/-	2.0E-09
Total phase (deg)	-183.6	Apriori accel (us/s/s)	8.65375277852E-07	Resid phase (deg)	53.0	+/-	14.4

ph/seg (deg)	78.3	Theor.	34.5	Amplitude	0.145 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	125.8	Search (2048X32)	0.142	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	27.3	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	48.7	Inc. seg. avg.	0.239	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
		Inc. frq. avg.	0.148	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

P: az 52.1 el 16.3 pa -55.5 Y: az 53.1 el 18.6 pa -52.8 u,v (fr/asec) -326.801 -258.506 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/PY..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/PY.W.67.1IFSML

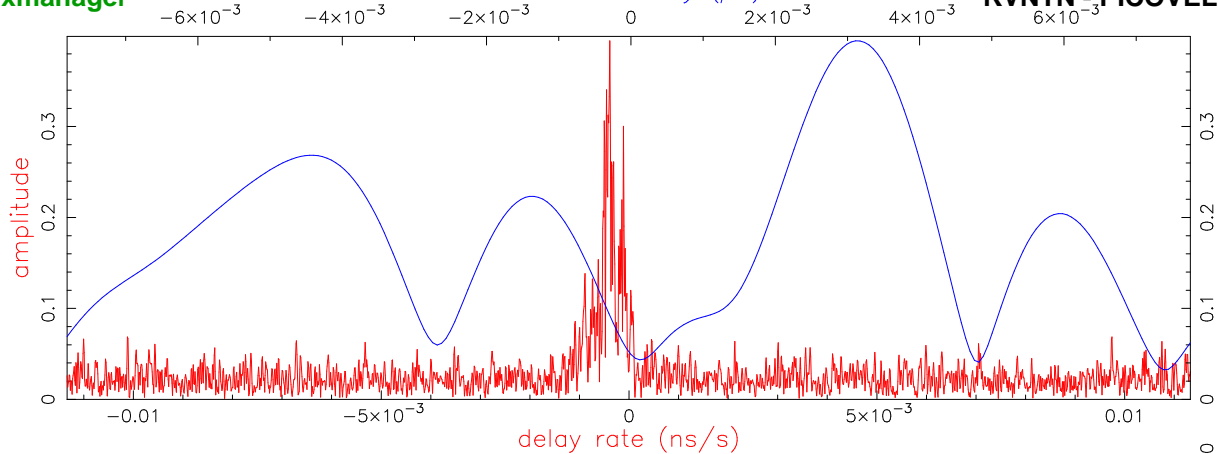
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, tP

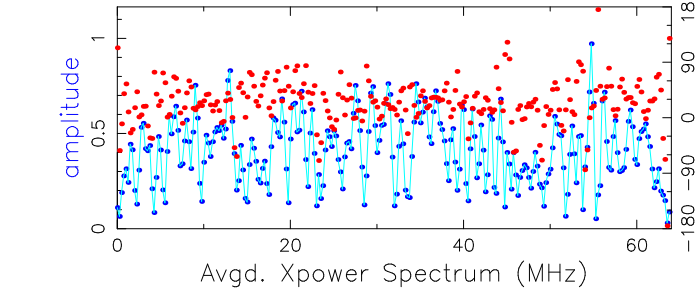
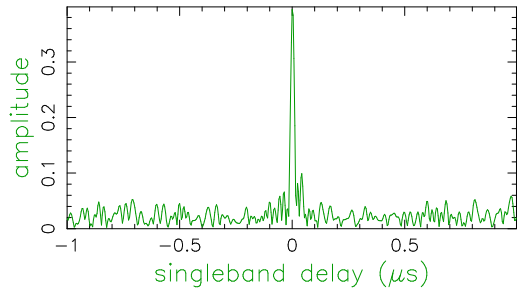
KVNTN - PICOVEL, fgroup W, pol LL

multiband delay (μ s)



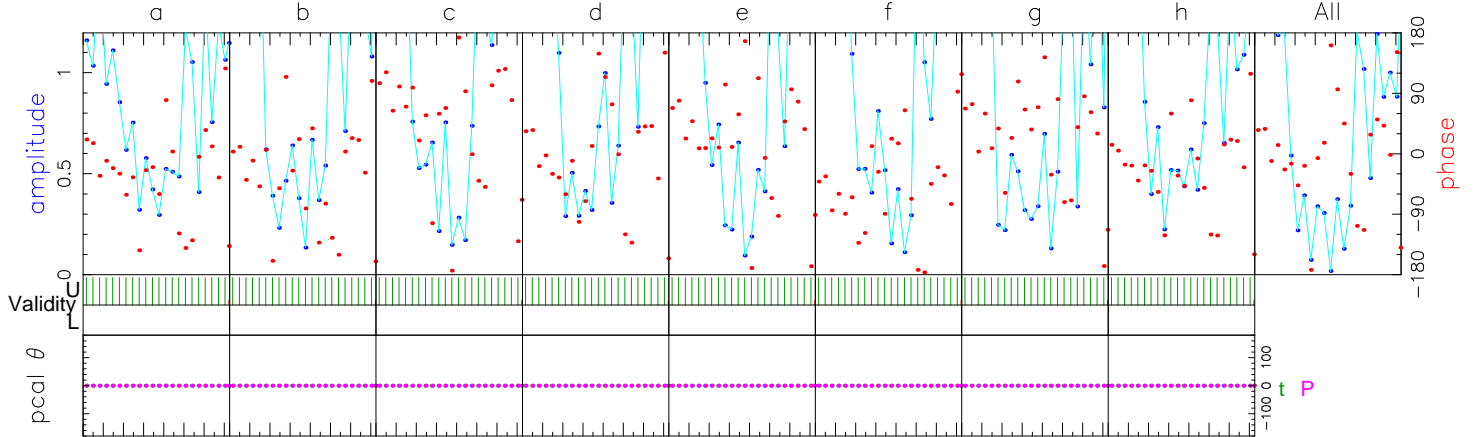
Fringe quality 7

SNR 22.3
 Int time 419.391
 Amp 0.399
 Phase 5.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.001414
 MBD 0.003170
 Fringe rate (Hz)
 -0.033332
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224337
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-20.8	-17.2	88.3	1.8	42.4	-62.4	41.6	-15.8		5.1
	0.4	0.5	0.6	0.5	0.6	0.6	0.6	0.6		0.5
	258.4	257.1	257.3	256.0	256.9	256.9	257.6	257.5		257.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.30597203546E+04	Apriori delay (usec)	1.30597171848E+04	Resid mbdelay (usec)	3.16976E-03	+/-	4.9E-05
Sband delay (usec)	1.30597185986E+04	Apriori clock (usec)	1.5826254E+00	Resid sbdelay (usec)	1.41375E-03	+/-	3.9E-04
Phase delay (usec)	1.30597171850E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	1.64908E-07	+/-	1.7E-07
Delay rate (us/s)	-1.45287236076E+00	Apriori rate (us/s)	-1.45287197381E+00	Resid rate (us/s)	-3.86955E-07	+/-	6.8E-10
Total phase (deg)	113.9	Apriori accel (us/s/s)	-7.33395602255E-05	Resid phase (deg)	5.1	+/-	5.1

ph/seg (deg)	RMS 76.4	Theor. 12.3	Amplitude Search (2048X32)	0.399 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	76.4	12.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	137.5	21.5	Inc. seg. avg.	0.701	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	51.3	7.3	Inc. frq. avg.	0.546	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

t: az 293.8 el 65.2 pa 96.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10698.099 -5295.824 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/tP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/tP.W.11.1IFSML

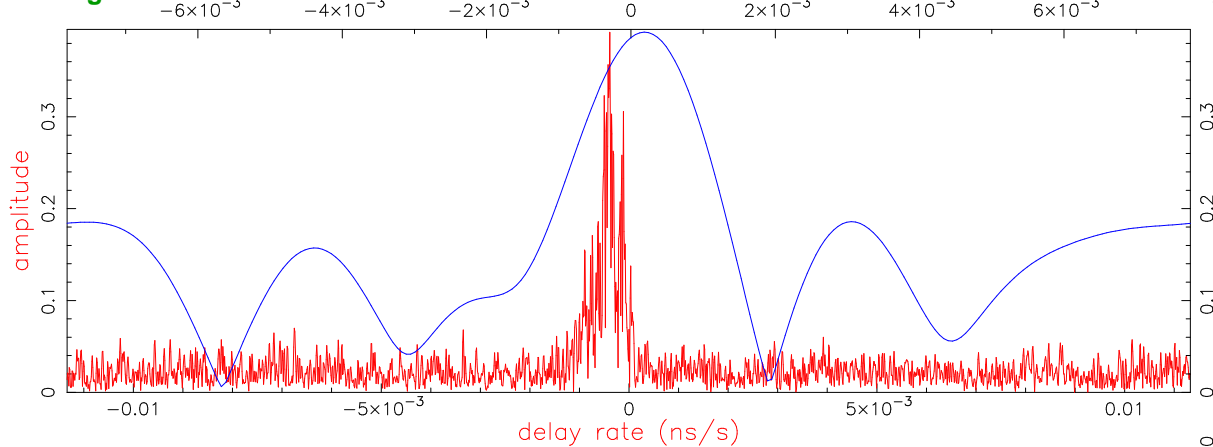
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, tP

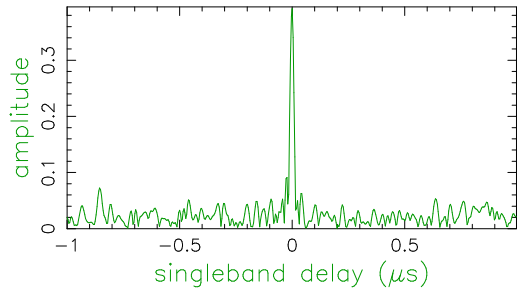
KVNTN - PICOVEL, fgroup W, pol RR

multiband delay (μs)

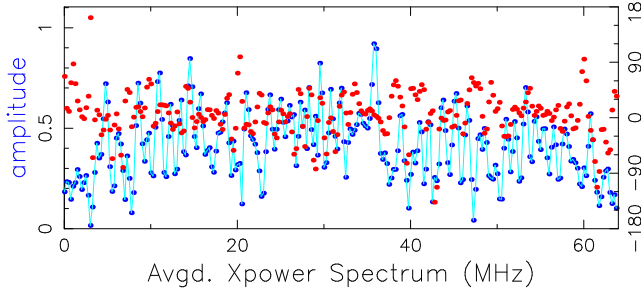


Fringe quality 8

SNR 22.1
 Int time 419.391
 Amp 0.395
 Phase -9.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.001167
 MBD 0.000155
 Fringe rate (Hz)
 -0.033172
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

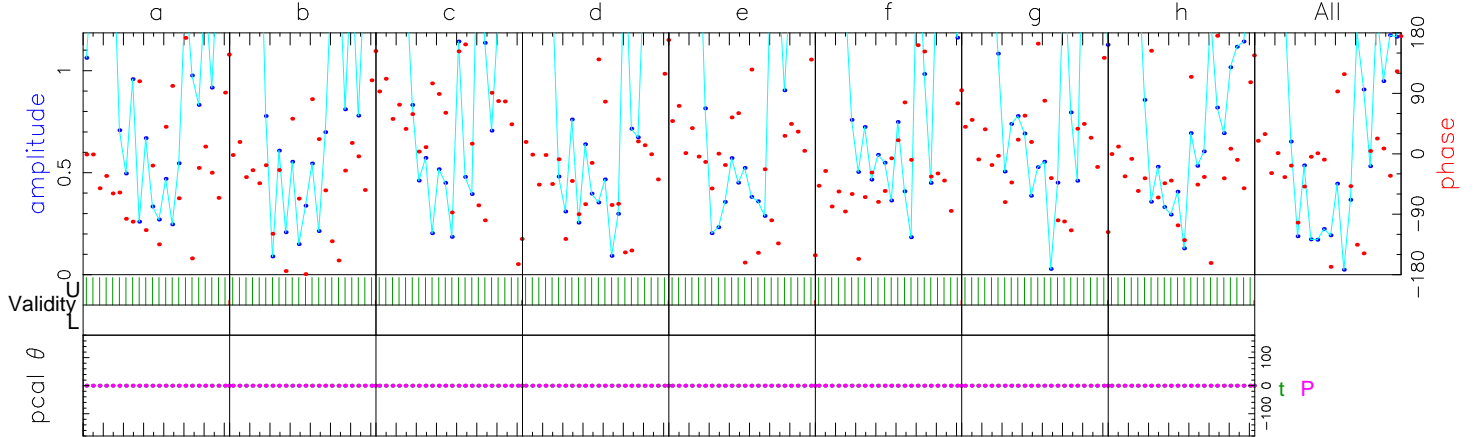


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224341
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-41.6	-23.5	76.7	-20.6	21.9	-52.8	14.1	-24.2	Phase	-9.1
	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.4	Ampl.	0.5
	258.4	256.6	256.0	256.0	256.0	256.5	256.6	256.3	Sbd box	256.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)		1.30597173401E+04		Apriori delay (usec)	1.30597171848E+04		Resid mbdelay (usec)	1.55288E-04	+/-	4.9E-05
Sband delay (usec)		1.30597160176E+04		Apriori clock (usec)	1.5826254E+00		Resid sbdelay (usec)	-1.16725E-03	+/-	3.9E-04
Phase delay (usec)		1.30597171845E+04		Apriori clockrate (us/s)	5.0000000E-07		Resid phdelay (usec)	-2.92266E-07	+/-	1.7E-07
Delay rate (us/s)		-1.45287235891E+00		Apriori rate (us/s)	-1.45287197381E+00		Resid rate (us/s)	-3.85097E-07	+/-	6.9E-10
Total phase (deg)			99.8	Apriori accel (us/s/s)	-7.33395602255E-05		Resid phase (deg)	-9.1	+/-	5.2

ph/seg (deg) 75.7 12.4 Search (2048X32) 0.378 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 152.4 21.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 45.4 7.3 Inc. seg. avg. 0.748 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.2 12.8 Inc. frq. avg. 0.492 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 293.8 el 65.2 pa 96.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10698.099 -5295.824 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/tP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/tP.W.31.1IFSML

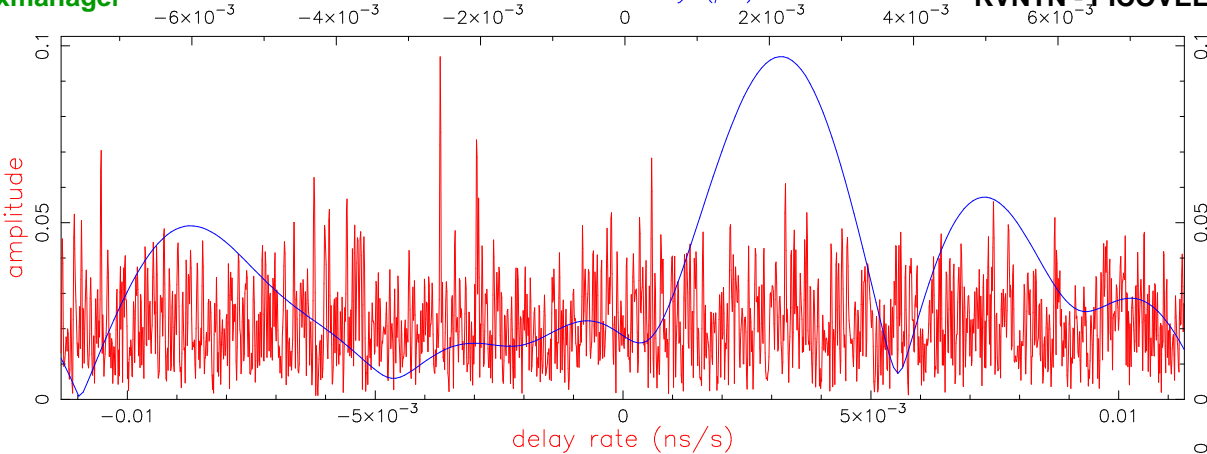
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, tP

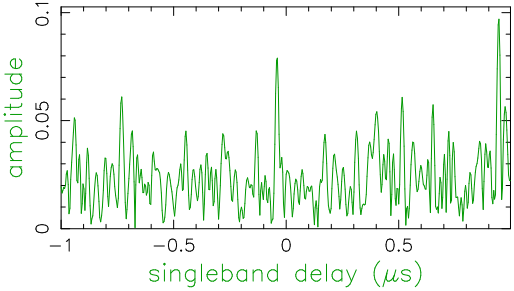
KVNTN - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

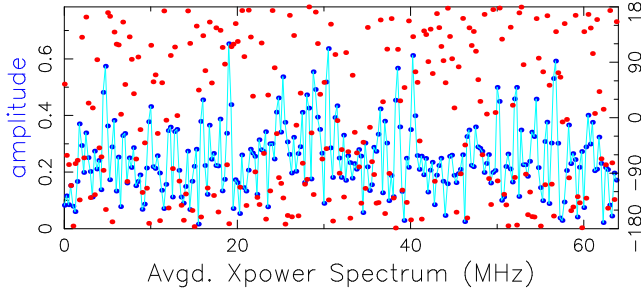


Fringe quality 0

SNR 5.5
 Int time 419.391
 Amp 0.103
 Phase -128.5
 PFD 1.0e+00
 Delays (us)
 SBD 0.943891
 MBD 0.002134
 Fringe rate (Hz)
 -0.318498
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

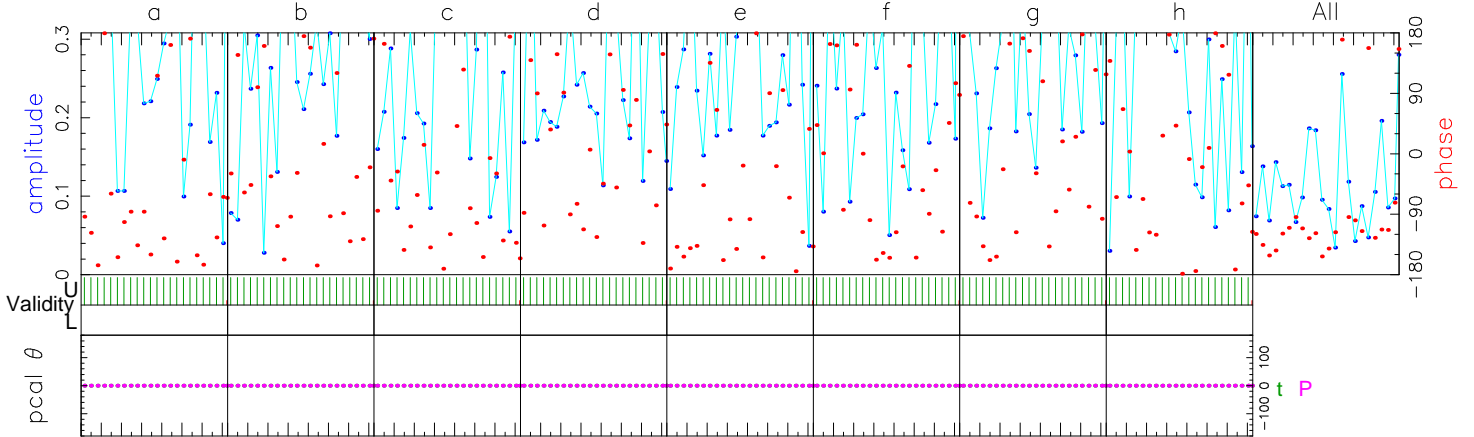


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224345
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	1.30606568192E+04	Apriori delay (usec)	1.30597171848E+04	Resid mbdelay (usec)	2.13438E-03	+/-	2.0E-04
Sband delay (usec)	1.30606610756E+04	Apriori clock (usec)	1.5826254E+00	Resid sbdelay (usec)	9.43891E-01	+/-	1.6E-03
Phase delay (usec)	1.30597171807E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-4.14363E-06	+/-	6.7E-07
Delay rate (us/s)	-1.45287567125E+00	Apriori rate (us/s)	-1.45287197381E+00	Resid rate (us/s)	-3.69744E-06	+/-	2.8E-09
Total phase (deg)	-19.7	Apriori accel (us/s/s)	-7.33395602255E-05	Resid phase (deg)	-128.5	+/-	20.8

ph/seg (deg)	29.9	Theor.	49.9	Amplitude	0.103 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	58.0		87.2	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	41.1		29.5	Inc. seg. avg.	0.085	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	58.0		51.4	Inc. frq. avg.	0.095	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
						Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 293.8 el 65.2 pa 96.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10698.099 -5295.824 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/tP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/tP.W.50.1IFSML

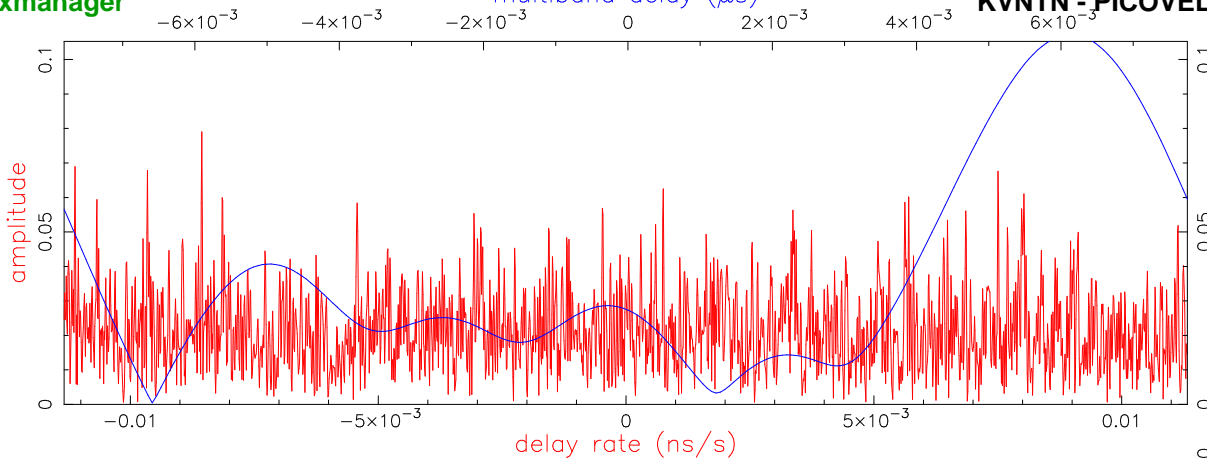
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1FSML, No0080, tP

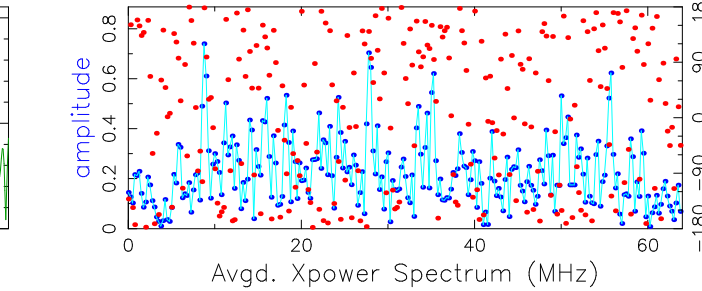
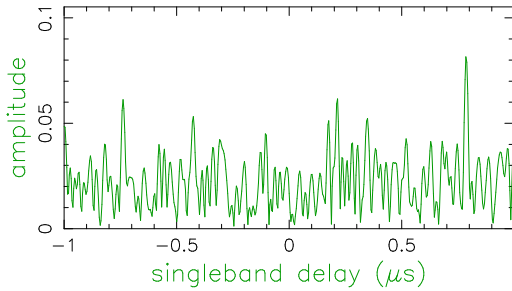
KVNTN - PICOVEL, fgroup W, pol RL

multiband delay (μ s)



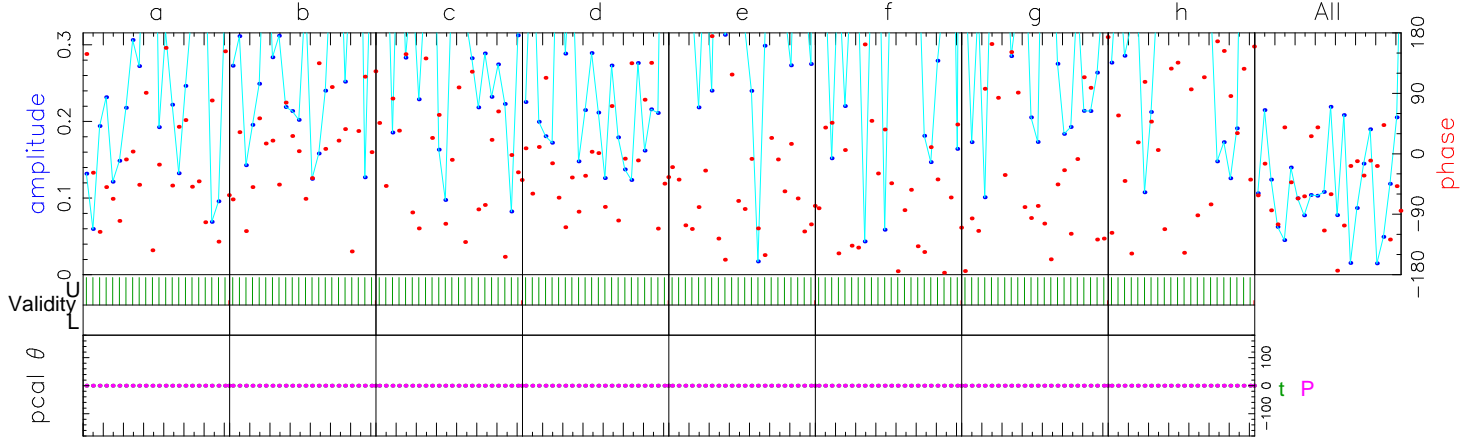
Fringe quality 0

SNR 4.6
 Int time 419.391
 Amp 0.105
 Phase -51.1
 PFD 1.0e+00
 Delays (us)
 SBD 0.786381
 MBD -0.008301
 Fringe rate (Hz)
 -0.738318
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224348
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-71.2	16.2	7.6	-35.9	-70.2	-81.0	-125.2	131.4	Phase	-51.1
	0.1	0.2	0.1	0.2	0.3	0.2	0.1	0.1	Ampl.	0.1
	7.5	458.6	223.4	458.0	459.9	373.3	256.5	429.6	Sbd box	458.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.30605057591E+04		Apriori delay (usec)		1.30597171848E+04		Resid mbdelay (usec)		-8.30078E-03	+/- 2.4E-04
Sband delay (usec)	1.30605035656E+04		Apriori clock (usec)		1.5826254E+00		Resid sbdelay (usec)		7.86381E-01	+/- 1.9E-03
Phase delay (usec)	1.30597171832E+04		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-1.64691E-06	+/- 8.0E-07
Delay rate (us/s)	-1.45288054495E+00		Apriori rate (us/s)		-1.45287197381E+00		Resid rate (us/s)		-8.57114E-06	+/- 3.3E-09
Total phase (deg)	57.8		Apriori accel (us/s/s)		-7.33395602255E-05		Resid phase (deg)		-51.1	+/- 24.9

ph/seg (deg) 56.6 59.7 Amplitude 0.105 +/- 0.023 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 90.2 104.2 Interp. 0.105 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 88.4 35.2 Inc. seg. avg. 0.097 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 81.7 61.4 Inc. frq. avg. 0.136 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 293.8 el 65.2 pa 96.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10698.099 -5295.824 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c2020b/v1/v1_3mm/1234/No0080/tP..1FSML Output file: /Exps/c2020b/v1/v1_3mm/1234/No0080/tP.W.70.1FSML

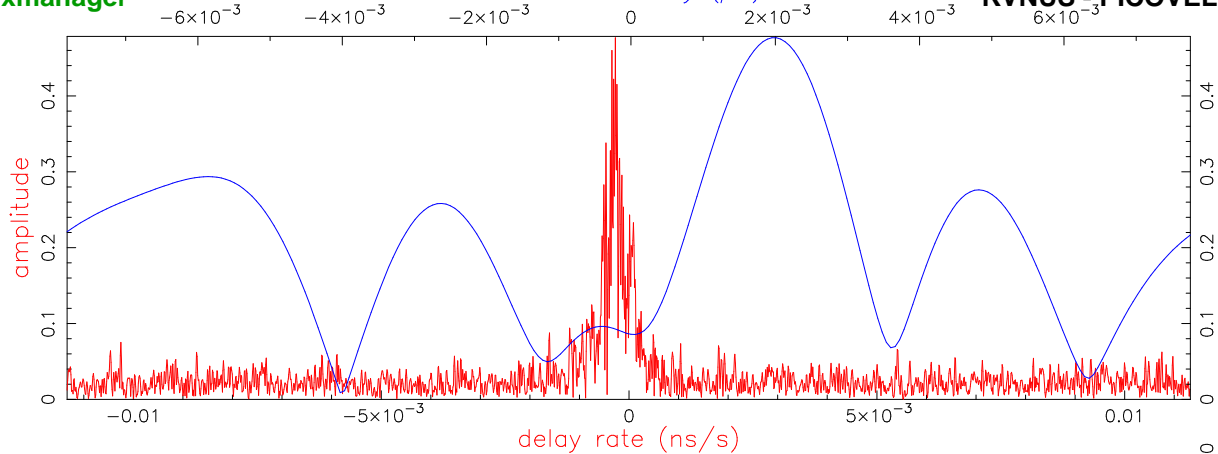
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, uP

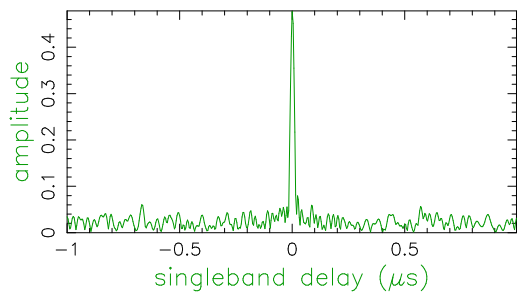
KVNUS - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

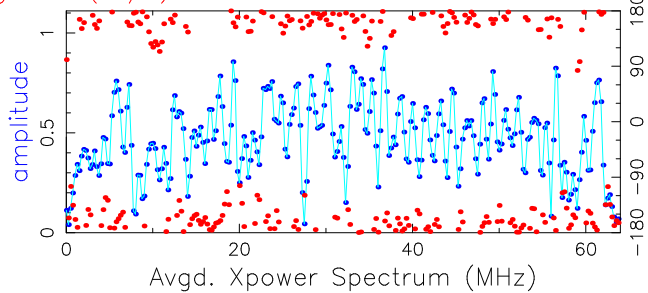


Fringe quality 5

SNR 26.7
 Int time 416.470
 Amp 0.479
 Phase 166.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.000726
 MBD 0.002000
 Fringe rate (Hz)
 -0.023449
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

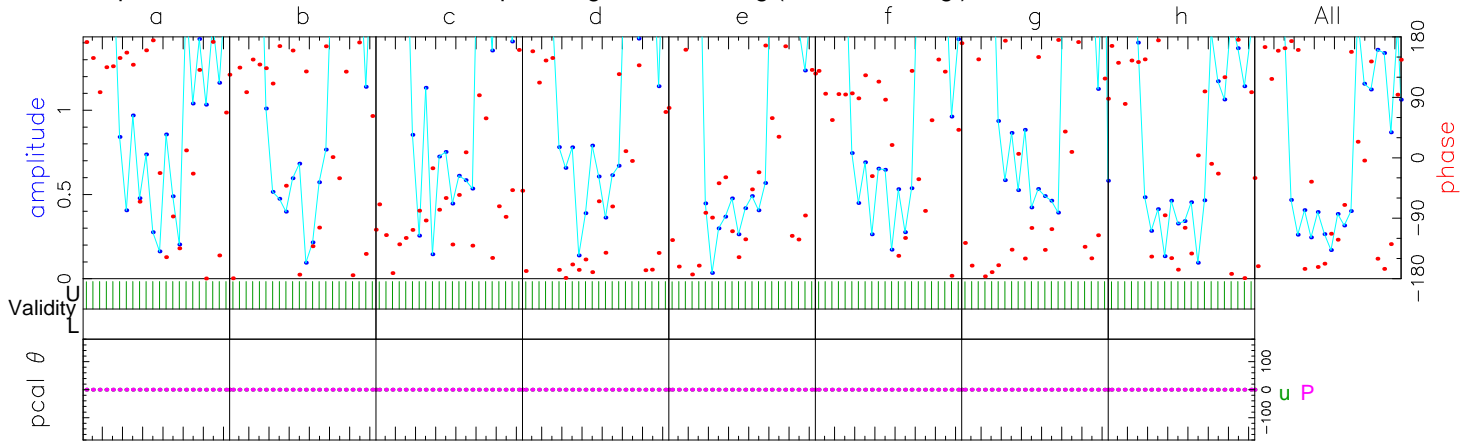


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090002.56
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224338
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	145.4	144.6	-109.5	161.3	-155.2	95.6	-168.3	147.3	Phase	166.6
u	0.6	0.8	0.7	0.6	0.6	0.7	0.8	0.5	Ampl.	0.7
P	258.4	257.2	256.7	256.4	256.6	257.0	257.0	257.2	Sbd box	257.2
u:P	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0	APs used	
u:P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 1.28433409673E+04 Apriori delay (usec) 1.28433389676E+04 Resid mbdelay (usec) 1.99972E-03 +/- 4.1E-05
 Sband delay (usec) 1.28433396936E+04 Apriori clock (usec) 2.7628088E+00 Resid sbdelay (usec) 7.26000E-04 +/- 3.2E-04
 Phase delay (usec) 1.28433389730E+04 Apriori clockrate (us/s) 7.9999999E-07 Resid phdelay (usec) 5.37334E-06 +/- 1.4E-07
 Delay rate (us/s) -1.47928816687E+00 Apriori rate (us/s) -1.47928789465E+00 Resid rate (us/s) -2.7223E-07 +/- 5.7E-10
 Total phase (deg) 47.5 Apriori accel (us/s/s) -6.98410770584E-05 Resid phase (deg) 166.6 +/- 4.3

RMS Theor. Amplitude 0.479 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 74.0 10.3 Search (2048X32) 0.442 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 148.4 18.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 50.8 6.1 Inc. seg. avg. 0.899 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 41.0 10.6 Inc. frq. avg. 0.651 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 289.2 el 63.9 pa 88.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10901.492 -4848.623 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/uP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/uP.W.15.1IFSML

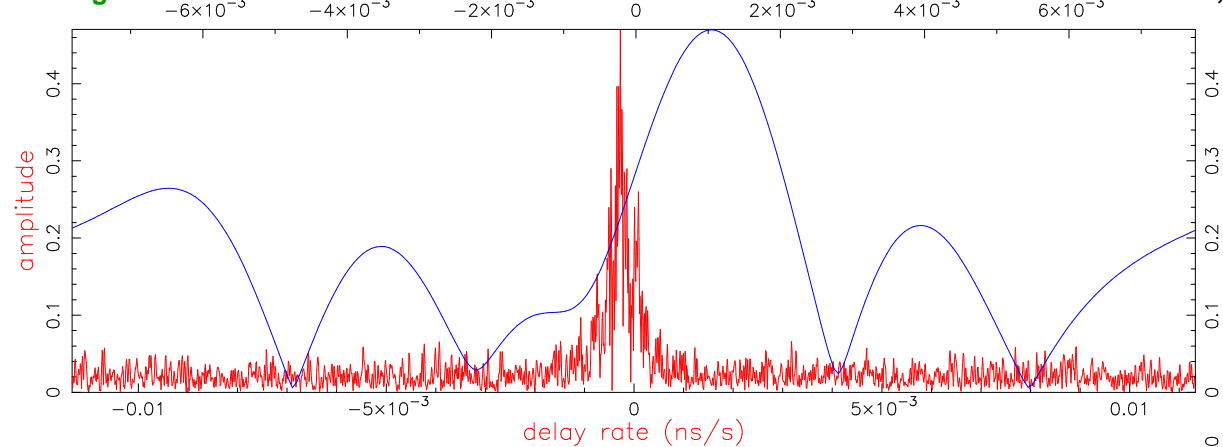
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, uP

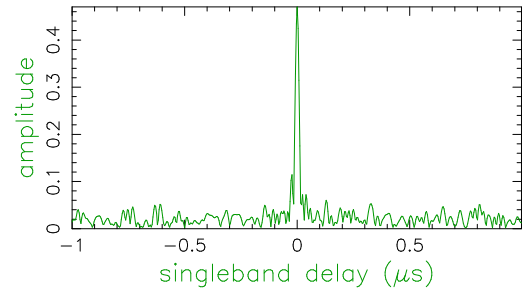
KVNUS - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

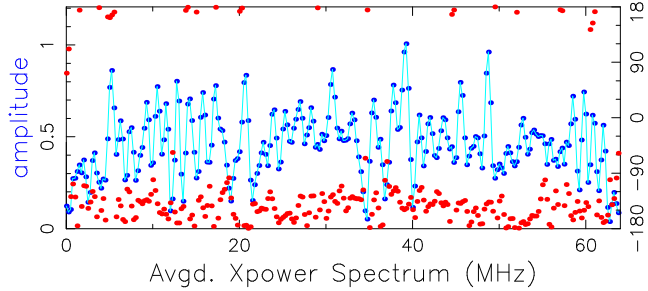


Fringe quality 6

SNR 26.2
 Int time 416.470
 Amp 0.470
 Phase -163.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000251
 MBD 0.001040
 Fringe rate (Hz)
 -0.023468
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

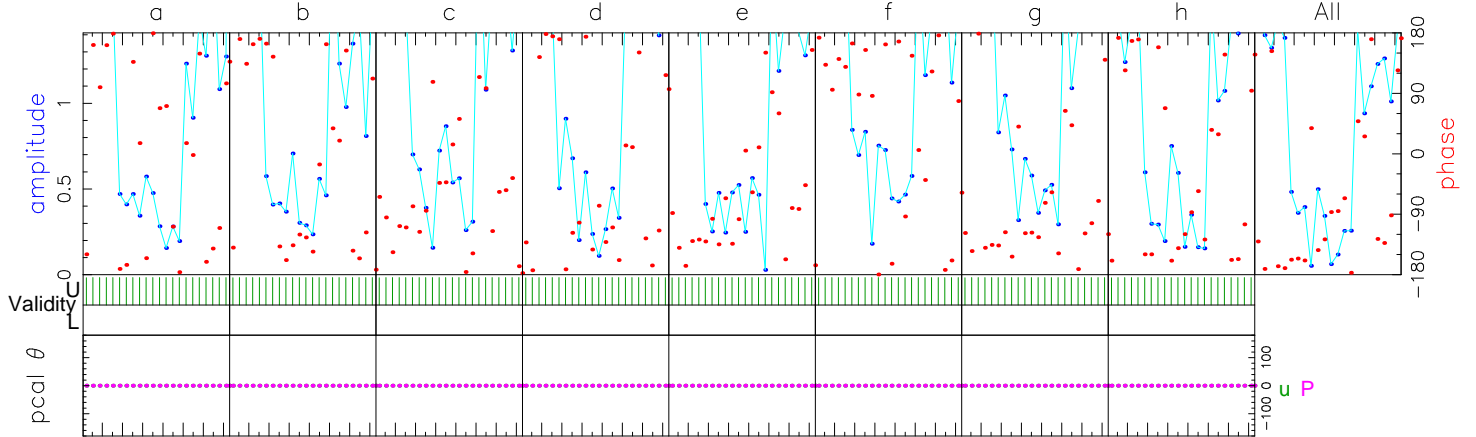


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090002.56
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224342
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	172.5	173.3	-94.0	-172.6	-124.0	143.7	-136.9	176.6	Phase	-163.9
u	0.5	0.5	0.6	0.6	0.5	0.7	0.8	0.5	Ampl.	0.6
P	258.2	257.0	256.0	256.2	256.3	256.4	256.6	256.8	Sbd box	256.9
u:P	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0	APs used	
u:P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.28433400075E+04		Apriori delay (usec)		1.28433389676E+04		Resid mbdelay (usec)		1.03987E-03	+/- 4.1E-05
Sband delay (usec)	1.28433387166E+04		Apriori clock (usec)		2.7628088E+00		Resid sbdelay (usec)		-2.51000E-04	+/- 3.3E-04
Phase delay (usec)	1.28433389623E+04		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		-5.28621E-06	+/- 1.4E-07
Delay rate (us/s)	-1.47928816708E+00		Apriori rate (us/s)		-1.47928789465E+00		Resid rate (us/s)		-2.72440E-07	+/- 5.8E-10
Total phase (deg)	76.9		Apriori accel (us/s/s)		-6.98410770584E-05		Resid phase (deg)		-163.9	+/- 4.4

ph/seg (deg) 72.6 10.5 Search (2048X32) 0.439 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 137.0 18.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.8 6.2 Inc. seg. avg. 0.821 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 31.4 10.8 Inc. frq. avg. 0.590 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 289.2 el 63.9 pa 88.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10901.492 -4848.623 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/uP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/uP.W.35.1IFSML

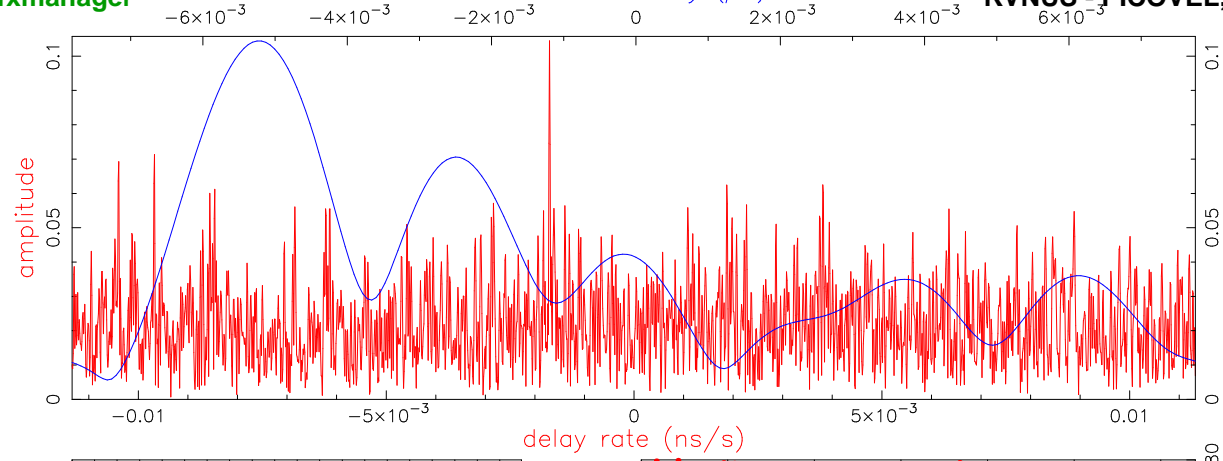
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

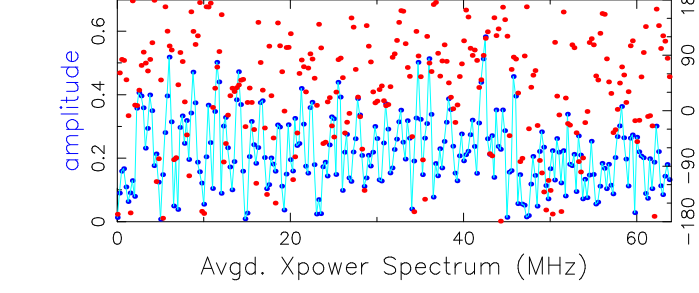
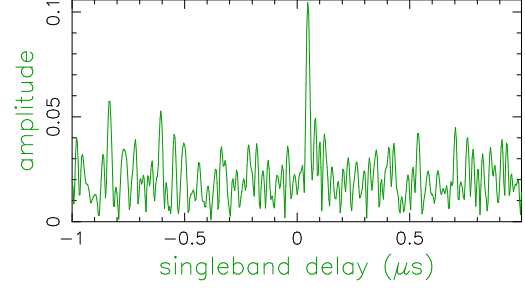
3C345.1IFSML, No0080, uP

KVNUS - PICOVEL, fgroup W, pol LR

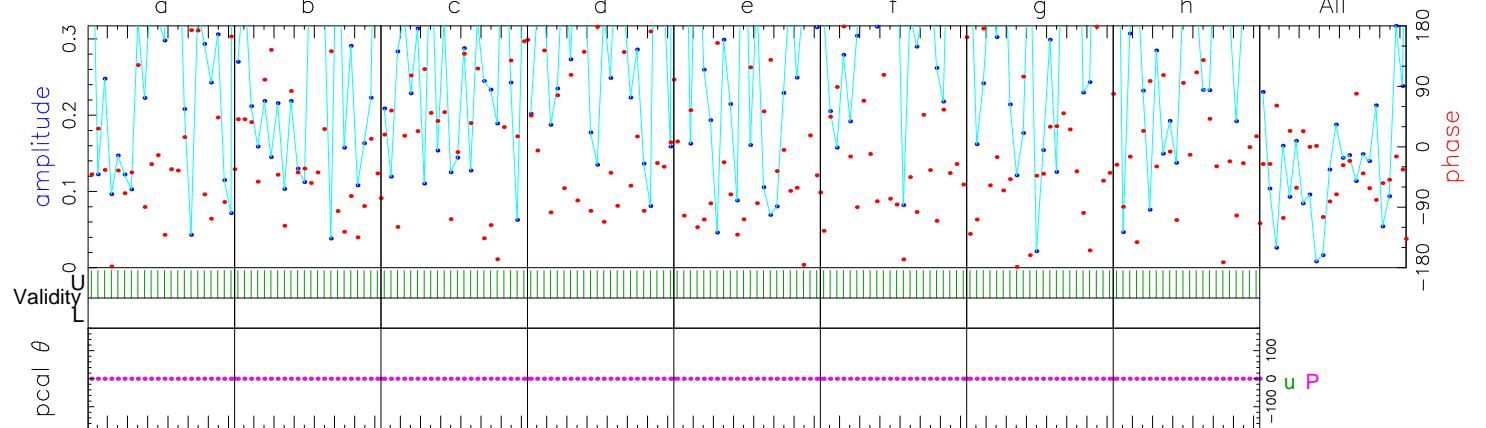
multiband delay (μ s)



Fringe quality 0
 SNR 5.8
 Int time 416.470
 Amp 0.106
 Phase -38.6
 PFD 7.2e-01
 Delays (us)
 SBD 0.047614
 MBD -0.005214
 Fringe rate (Hz)
 -0.146690
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090002.56
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224345
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-43.5	-31.2	71.2	-51.9	-71.5	-46.2	-61.3	-6.7	Phase	-38.6
	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	Ampl.	0.1
	426.1	270.3	73.3	45.4	101.3	411.8	437.6	223.9	Sbd box	269.2
U/L	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:P	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	
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.28433806289E+04		Apriori delay (usec)		1.2843389676E+04		Resid mbdelay (usec)		-5.21374E-03	+/- 1.9E-04
Sband delay (usec)	1.28433865821E+04		Apriori clock (usec)		2.7628088E+00		Resid sbdelay (usec)		4.76145E-02	+/- 1.5E-03
Phase delay (usec)	1.2843389664E+04		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		-1.24603E-06	+/- 6.3E-07
Delay rate (us/s)	-1.4792895975E+00		Apriori rate (us/s)		-1.47928789465E+00		Resid rate (us/s)		-1.70293E-06	+/- 2.6E-09
Total phase (deg)	202.2		Apriori accel (us/s/s)		-6.98410770584E-05		Resid phase (deg)		-38.6	+/- 19.6

ph/seg (deg) 48.1 47.0 Search (2048X32) 0.102 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 76.4 82.0 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 27.7 Inc. seg. avg. 0.100 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.2 48.4 Inc. frq. avg. 0.114 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 289.2 el 63.9 pa 88.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10901.492 -4848.623 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/uP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/uP.W.54.1IFSML

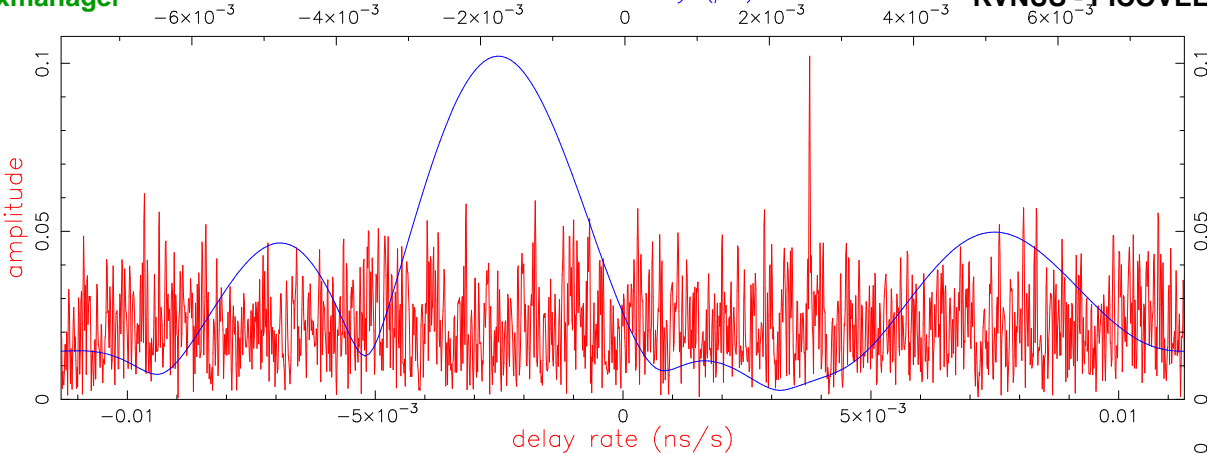
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, uP

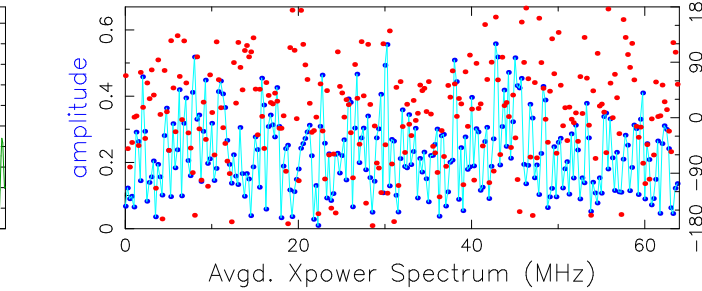
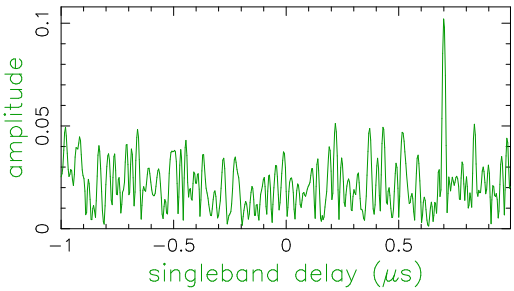
KVNUS - PICOVEL, fgroup W, pol RL

multiband delay (μs)



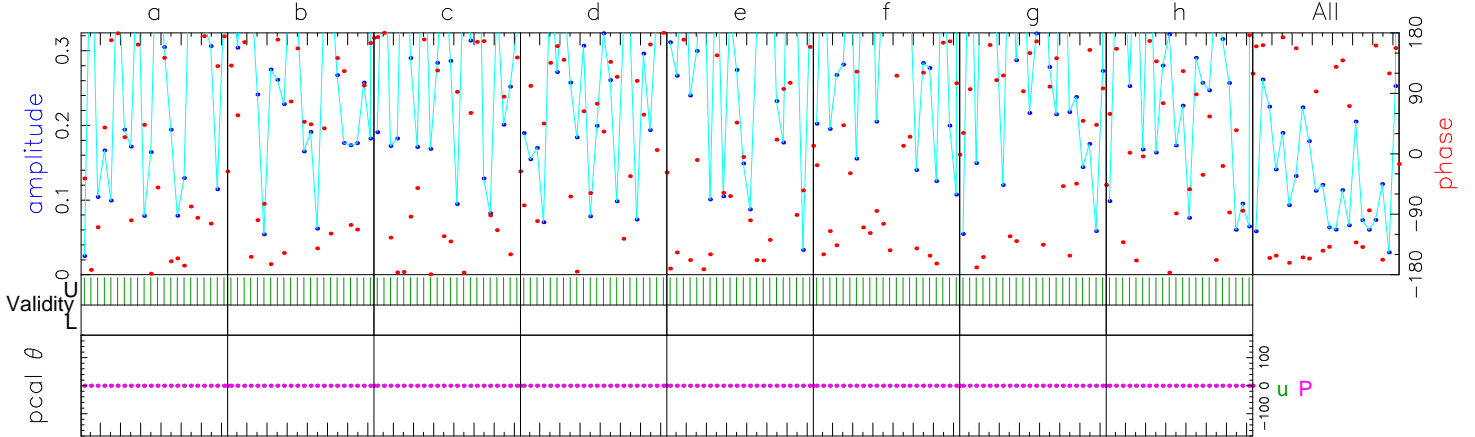
Fringe quality 0

SNR 5.8
 Int time 416.470
 Amp 0.108
 Phase -175.8
 PFD 8.8e-01
 Delays (us)
 SBD 0.700437
 MBD -0.001727
 Fringe rate (Hz)
 0.325098
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090002.56
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224349
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	815/0	815/0	815/0	815/0	815/0	815/0	815/0	815/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
u:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:P	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		
P	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.28440403655E+04	Apriori delay (usec)	1.28433389676E+04	Resid mbdelay (usec)	-1.72710E-03	+/-	1.9E-04
Sband delay (usec)	1.28440394043E+04	Apriori clock (usec)	2.7628088E+00	Resid sbdelay (usec)	7.00437E-01	+/-	1.5E-03
Phase delay (usec)	1.28433389619E+04	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-5.66807E-06	+/-	6.4E-07
Delay rate (us/s)	-1.47928412058E+00	Apriori rate (us/s)	-1.47928789465E+00	Resid rate (us/s)	3.77406E-06	+/-	2.7E-09
Total phase (deg)	65.1	Apriori accel (us/s/s)	-6.98410770584E-05	Resid phase (deg)	-175.8	+/-	19.9

ph/seg (deg)	47.9	Theor.	47.7	Amplitude	0.108 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	78.9		83.3	Search (2048X32)	0.101	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	34.0		28.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	41.5		49.1	Inc. seg. avg.	0.102	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.106	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

u: az 289.2 el 63.9 pa 88.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10901.492 -4848.623 simultaneous interpolator

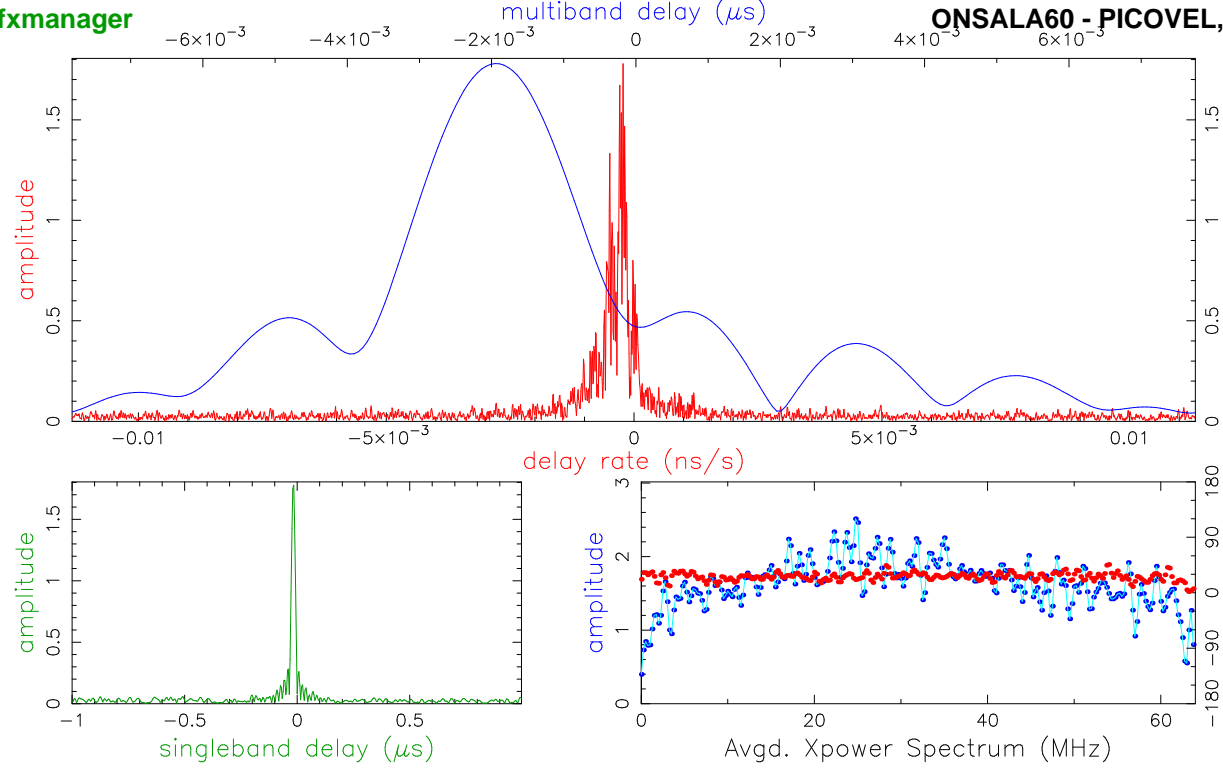
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/uP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/uP.W.73.1IFSML

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, XP

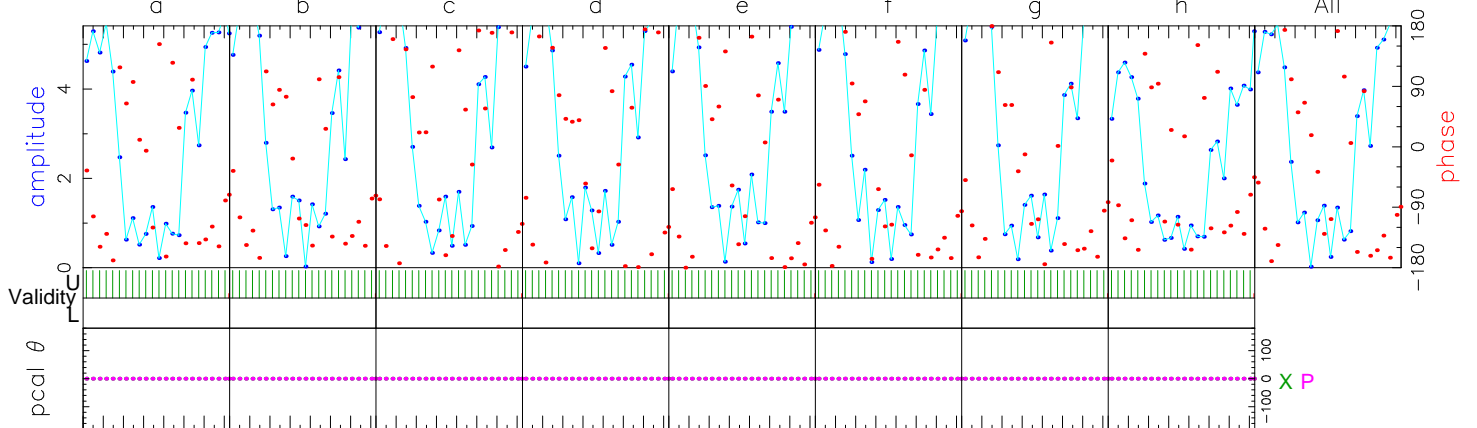
ONSALA60 - PICOVEL, fgroup W, pol RR



Fringe quality 3

SNR 101.1
 Int time 419.376
 Amp 1.805
 Phase -148.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.017216
 MBD -0.001976
 Fringe rate (Hz)
 -0.018963
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224356
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-131.8	-127.4	-173.9	-174.7	-162.3	-152.4	-140.8	-116.6	Phase	-148.9
	1.7	1.9	2.0	1.9	2.0	2.2	2.2	1.4	Ampl.	1.9
	252.5	252.2	252.2	252.6	252.9	252.6	252.7	252.8	Sbd box	252.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	6.31942698156E+03		Apriori delay (usec)		6.31944458291E+03		Resid mbdelay (usec)		-1.97635E-03	+/- 1.1E-05
Sband delay (usec)	6.31942736641E+03		Apriori clock (usec)		4.8544598E+01		Resid sbdelay (usec)		-1.72165E-02	+/- 8.5E-05
Phase delay (usec)	6.31944457811E+03		Apriori clockrate (us/s)		9.2799997E-07		Resid phdelay (usec)		-4.80302E-06	+/- 3.7E-08
Delay rate (us/s)	-3.01164065836E-01		Apriori rate (us/s)		-3.01163845692E-01		Resid rate (us/s)		-2.20144E-07	+/- 1.5E-10
Total phase (deg)			Apriori accel (us/s/s)		-1.60406839580E-05		Resid phase (deg)		-148.9	+/- 1.1

ph/seg (deg) 87.5 2.7 Search (2048X32) 1.751 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 129.2 4.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 23.6 1.6 Inc. seg. avg. 3.026 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 12.9 2.8 Inc. frq. avg. 1.888 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 X: az 69.7 el 35.3 pa -41.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 2220.390 556.179 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/XP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/XP.W.102.1IFSML

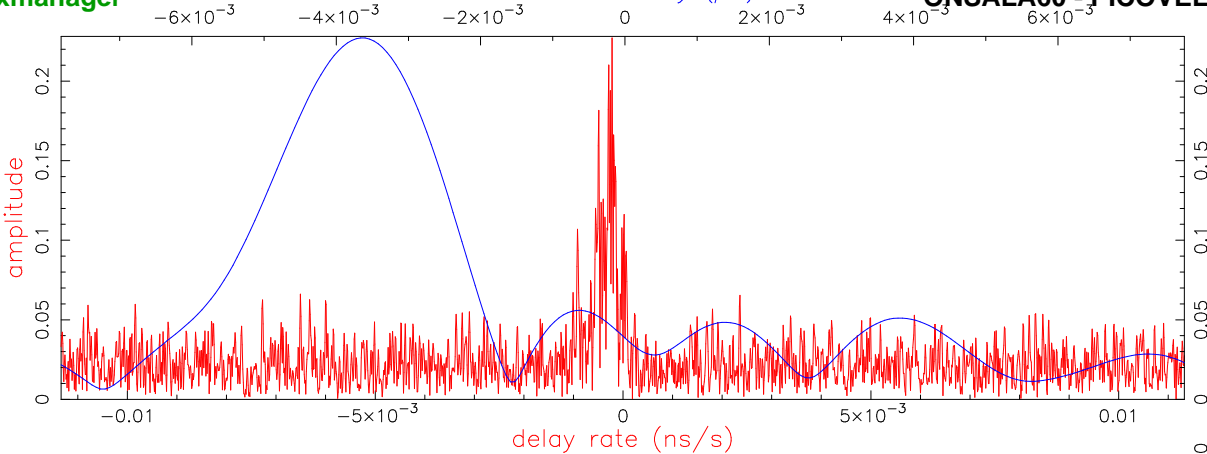
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, XP

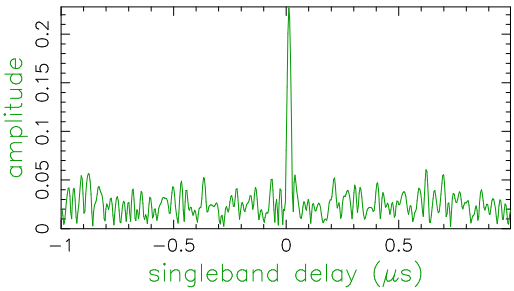
ONSALA60 - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

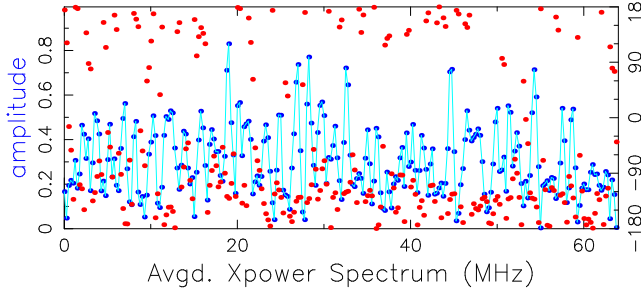


Fringe quality 9

SNR 12.8
Int time 419.376
Amp 0.228
Phase 45.5
PFD 1.3e-28
Delays (us)
SBD 0.012571
MBD -0.003608
Fringe rate (Hz)
-0.018970
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

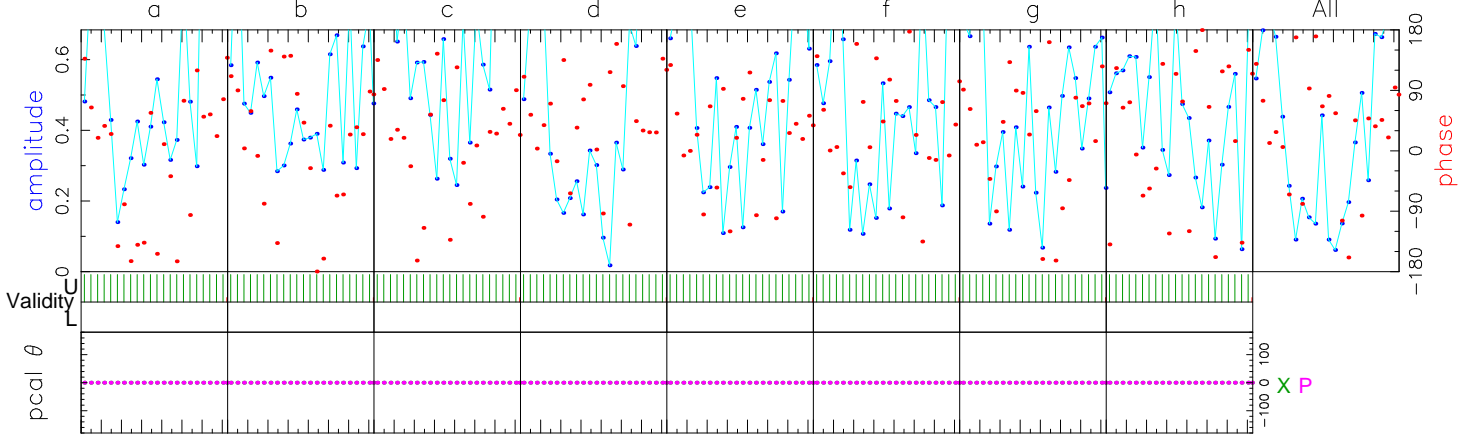


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 090000.00
Stop 090659.84
FRT 090330.00
Corr/FF/build
2021:019:223932
2021:019:224359
2020:247:085004
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
X	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	6.31945659950E+03	Apriori delay (usec)	6.31944458291E+03	Resid mbdelay (usec)	-3.60841E-03	+/-	8.5E-05
Sband delay (usec)	6.31945715366E+03	Apriori clock (usec)	4.8544598E+01	Resid sbdelay (usec)	1.25707E-02	+/-	6.7E-04
Phase delay (usec)	6.31944458438E+03	Apriori clockrate (us/s)	9.2799997E-07	Resid phdelay (usec)	1.46581E-06	+/-	2.9E-07
Delay rate (us/s)	-3.01164065912E-01	Apriori rate (us/s)	-3.01163845692E-01	Resid rate (us/s)	-2.20220E-07	+/-	1.2E-09
Total phase (deg)	179.4	Apriori accel (us/s/s)	-1.60406839580E-05	Resid phase (deg)	45.5	+/-	9.0

ph/seg (deg)	80.4	RMS	21.5	Theor.	21.5	Amplitude	0.228 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	129.8	Search (2048X32)	0.222	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled	sb window (us)	-1.000 1.000
ph/frq (deg)	25.4	Inc. seg. avg.	0.373	Inc. frq. avg.	0.233	Bits/sample: 2x2		Sample rate(MISamp/s): 128	mb window (us)	-0.008 0.008
amp/frq (%)	29.7	Inc. frq. avg.	0.233			Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite	dr window (ns/s)	-0.011 0.011

X: az 69.7 el 35.3 pa -41.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 2220.390 556.179 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/XP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/XP.W.118.1IFSML

Mk4/DiFX fourfit 3.21 rev 2937

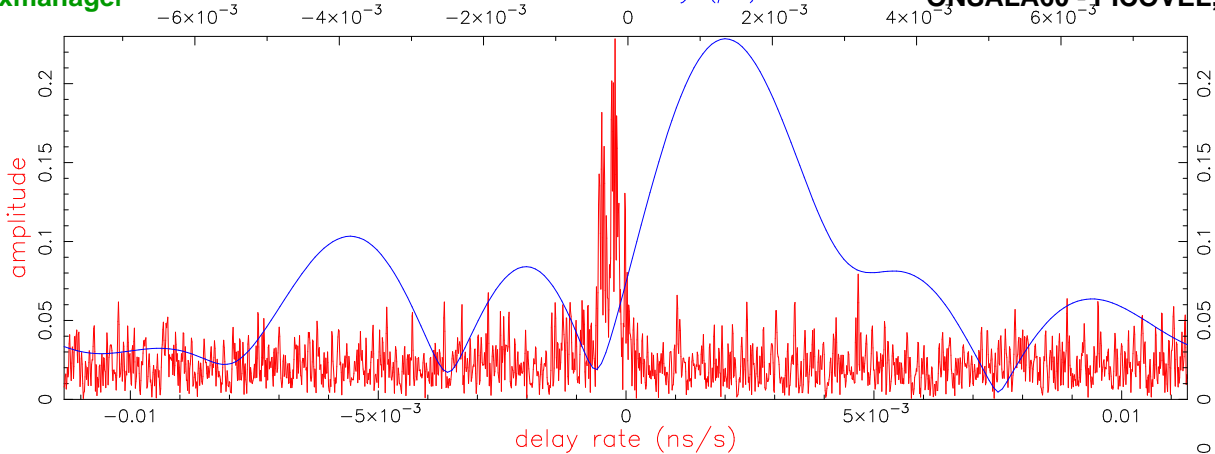
fxmanager

3C345.1IFSML, No0080, XP

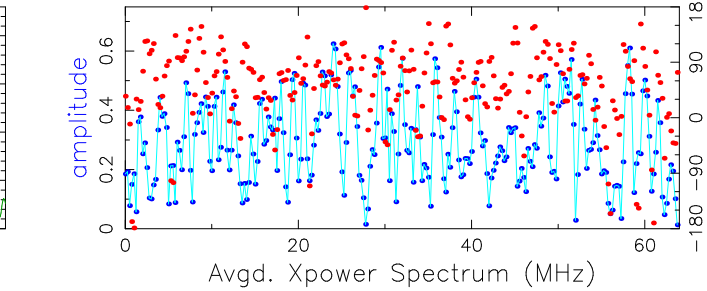
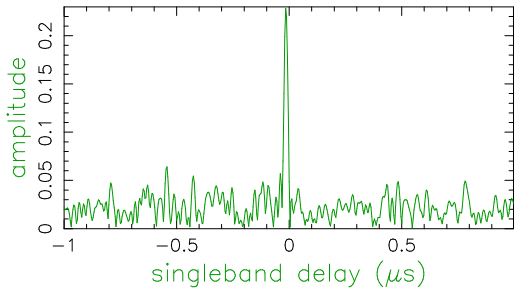
ONSALA60 - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 9

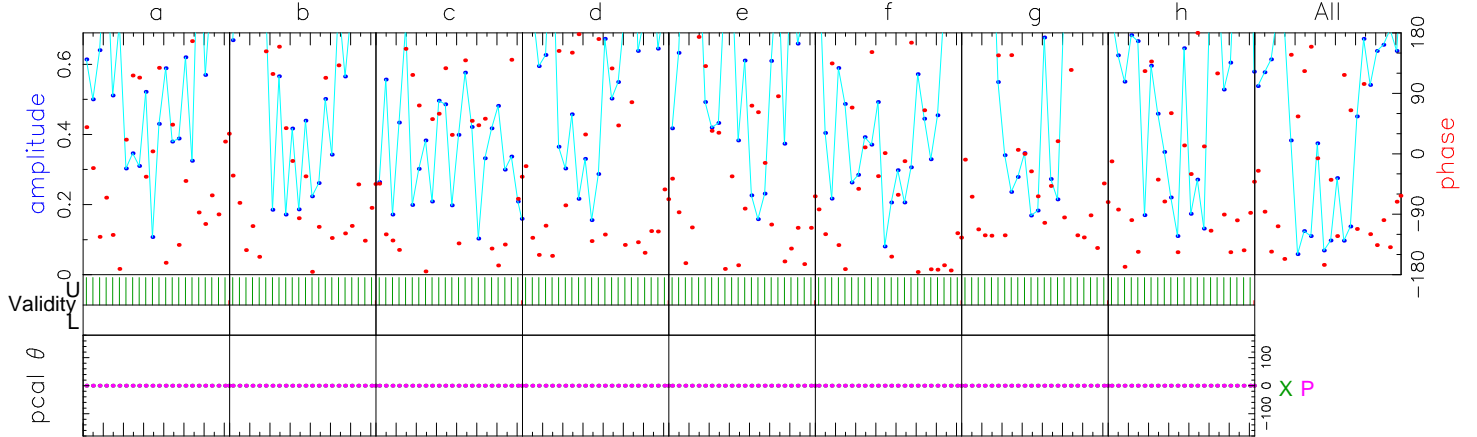


SNR 12.9
 Int time 419.376
 Amp 0.230
 Phase -119.5
 PFD 3.4e-29
 Delays (us)
 SBD -0.014533
 MBD 0.001373
 Fringe rate (Hz)
 -0.018888
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224402
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



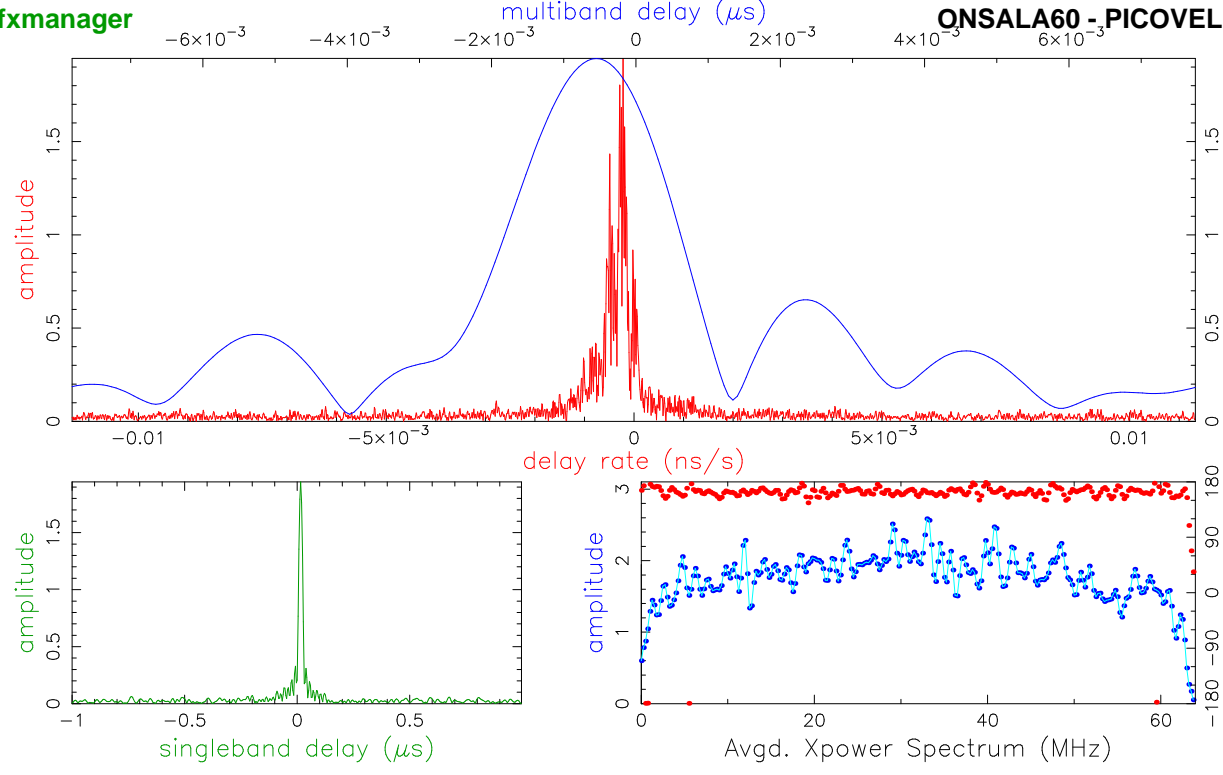
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-75.4	-115.6	161.4	-131.4	-131.8	-142.6	-103.9	-108.6	Phase	-119.5
	0.2	0.3	0.1	0.3	0.3	0.2	0.4	0.3	Ampl.	0.2
	251.3	252.6	296.4	252.1	253.9	253.6	253.7	252.8	Sbd box	253.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	6.31943033116E+03	Apriori delay (usec)	6.31944458291E+03	Resid mbdelay (usec)	1.37325E-03	+/-	8.4E-05
Sband delay (usec)	6.31943004966E+03	Apriori clock (usec)	4.8544598E+01	Resid sbdelay (usec)	-1.45332E-02	+/-	6.7E-04
Phase delay (usec)	6.31944457906E+03	Apriori clockrate (us/s)	9.2799997E-07	Resid phdelay (usec)	-3.85426E-06	+/-	2.9E-07
Delay rate (us/s)	-3.01164064964E-01	Apriori rate (us/s)	-3.01163845692E-01	Resid rate (us/s)	-2.19272E-07	+/-	1.2E-09
Total phase (deg)		Apriori accel (us/s/s)	-1.60406839580E-05	Resid phase (deg)	-119.5	+/-	8.9

ph/seg (deg)	85.5	Theor.	21.3	Amplitude	0.230 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	136.1		37.3	Search (2048X32)	0.222	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	39.6		12.6	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	32.9		22.0	Inc. seg. avg.	0.395	Sample rate(MISamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.248	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

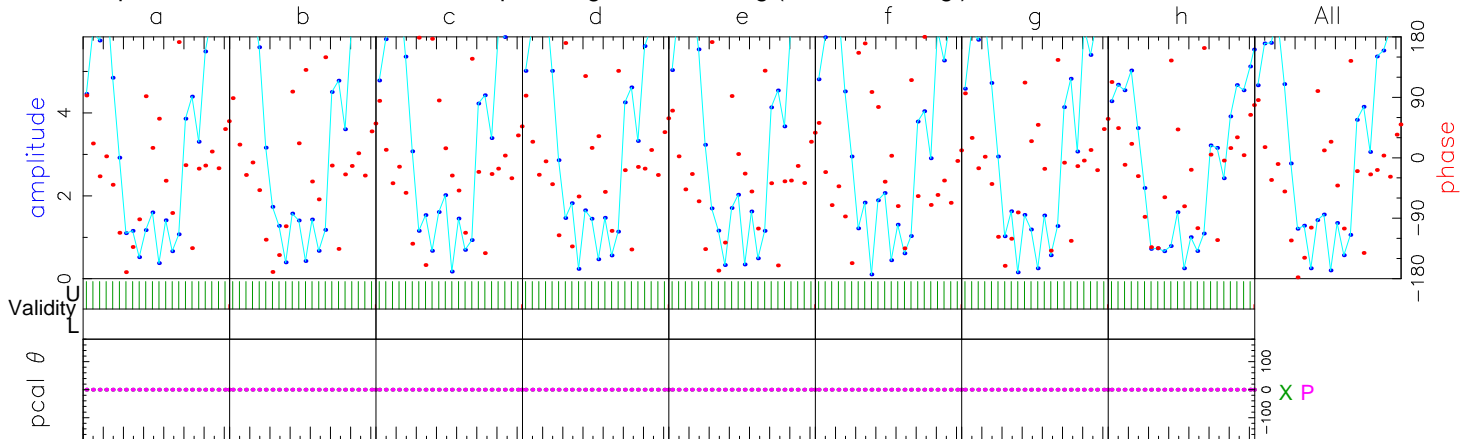
X: az 69.7 el 35.3 pa -41.4 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 2220.390 556.179 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/XP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/XP.W.134.1IFSML



Fringe quality 4
SNR 109.0
Int time 419.376
Amp 1.946
Phase -12.0
PFD 0.0e+00
Delays (us)
SBD 0.015424
MBD -0.000554
Fringe rate (Hz)
-0.018926
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 090000.00
Stop 090659.84
FRT 090330.00
Corr/FF/build
2021:019:223932
2021:019:224353
2020:247:085004
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-4.8	-7.0	-14.2	-6.5	-25.4	-49.4	-0.6	16.9	Phase	-12.0
	2.1	2.2	2.1	2.1	2.2	2.0	2.0	1.5	Ampl.	2.0
	260.6	260.9	260.9	260.8	260.7	261.2	261.5	261.0	Sbd box	260.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
X:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) 6.31945965344E+03 Apriori delay (usec) 6.31944458291E+03 Resid mbdelay (usec) -5.54474E-04 +/- 1.0E-05
 Sband delay (usec) 6.31946000716E+03 Apriori clock (usec) 4.8544598E+01 Resid sbdelay (usec) 1.54242E-02 +/- 7.9E-05
 Phase delay (usec) 6.31944458253E+03 Apriori clockrate (us/s) 9.2799997E-07 Resid phdelay (usec) -3.86163E-07 +/- 3.4E-08
 Delay rate (us/s) -3.01164065399E-01 Apriori rate (us/s) -3.01163845692E-01 Resid rate (us/s) -2.19707E-07 +/- 1.4E-10
 Total phase (deg) 122.0 Apriori accel (us/s/s) -1.60406839580E-05 Resid phase (deg) -12.0 +/- 1.1

RMS Theor. Amplitude 1.946 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 81.6 2.5 Search (2048X32) 1.908 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 131.2 4.4 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 21.0 1.5 Inc. seg. avg. 3.328 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 11.4 2.6 Inc. frq. avg. 2.037 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

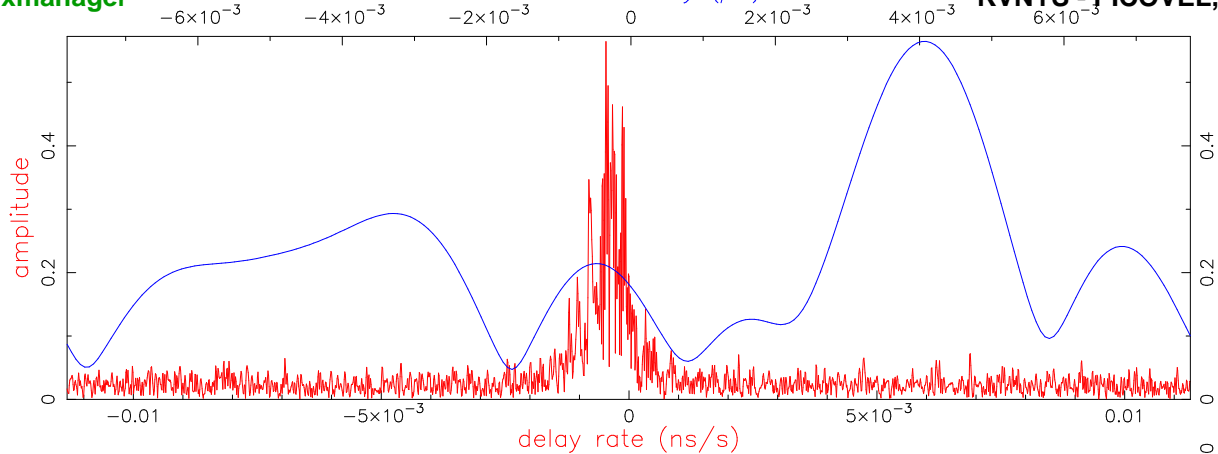
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, yP

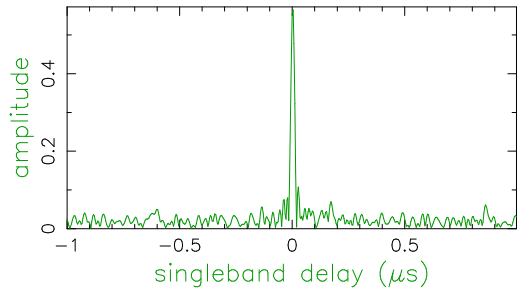
KVNS - PICOVEL, fgroup W, pol RR

multiband delay (μ s)

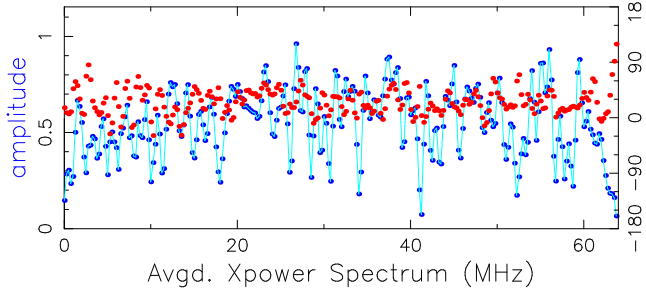


Fringe quality 4

SNR 31.2
 Int time 397.273
 Amp 0.573
 Phase 6.1
 PFD 0.0e+00
 Delays (us)
 SBD 0.002371
 MBD 0.004030
 Fringe rate (Hz)
 -0.039909
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

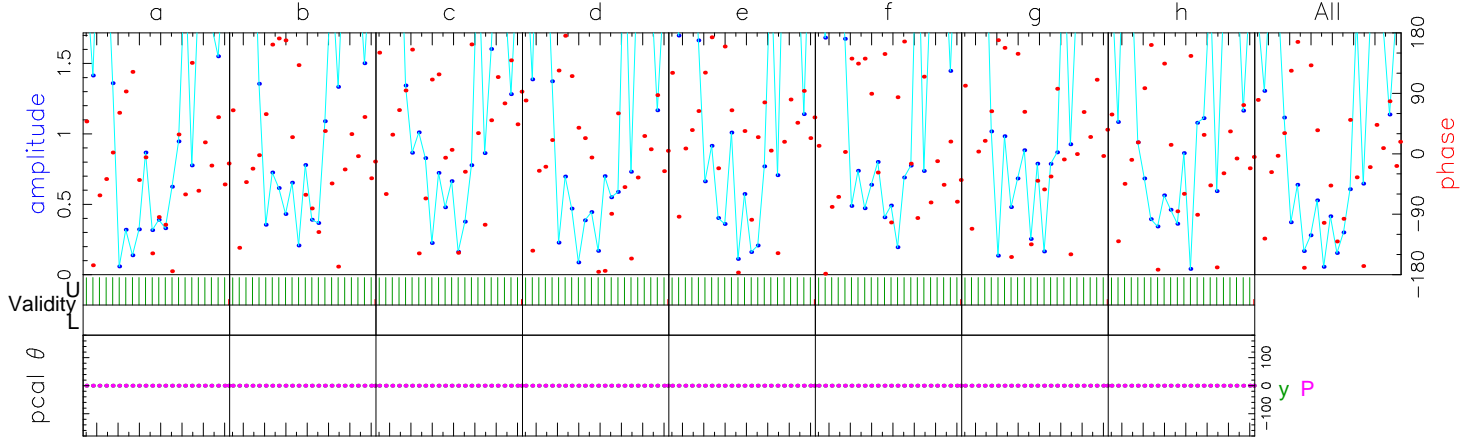


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090021.50
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224356
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-23.7	-10.9	74.6	-4.2	45.4	-49.8	32.1	-10.6	Phase	6.1
	0.7	0.7	0.6	0.7	0.9	0.7	0.7	0.7	Ampl.	0.7
	259.0	257.7	257.3	256.7	257.3	257.1	257.3	258.1	Sbd box	257.6
U/L	778/0	778/0	778/0	778/0	778/0	778/0	778/0	778/0	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	Manl 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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	1.32220340602E+04		Apriori delay (usec)		1.32220300301E+04		Resid mbdelay (usec)		4.03003E-03	+/- 3.5E-05
Sband delay (usec)	1.32220324006E+04		Apriori clock (usec)		1.4466257E+00		Resid sbdelay (usec)		2.37050E-03	+/- 2.8E-04
Phase delay (usec)	1.32220300303E+04		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		1.96023E-07	+/- 1.2E-07
Delay rate (us/s)	-1.43329980620E+00		Apriori rate (us/s)		-1.43329934290E+00		Resid rate (us/s)		-4.63299E-07	+/- 5.2E-10
Total phase (deg)	292.9		Apriori accel (us/s/s)		-6.98191219171E-05		Resid phase (deg)		6.1	+/- 3.7

ph/seg (deg) 94.2 8.8 Search (2048X32) 0.538 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 153.7 15.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 44.0 5.2 Inc. seg. avg. 1.046 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.0 9.1 Inc. frq. avg. 0.704 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 284.8 el 66.2 pa 85.2 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10559.349 -4650.280 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/yP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/yP.W.103.1IFSML

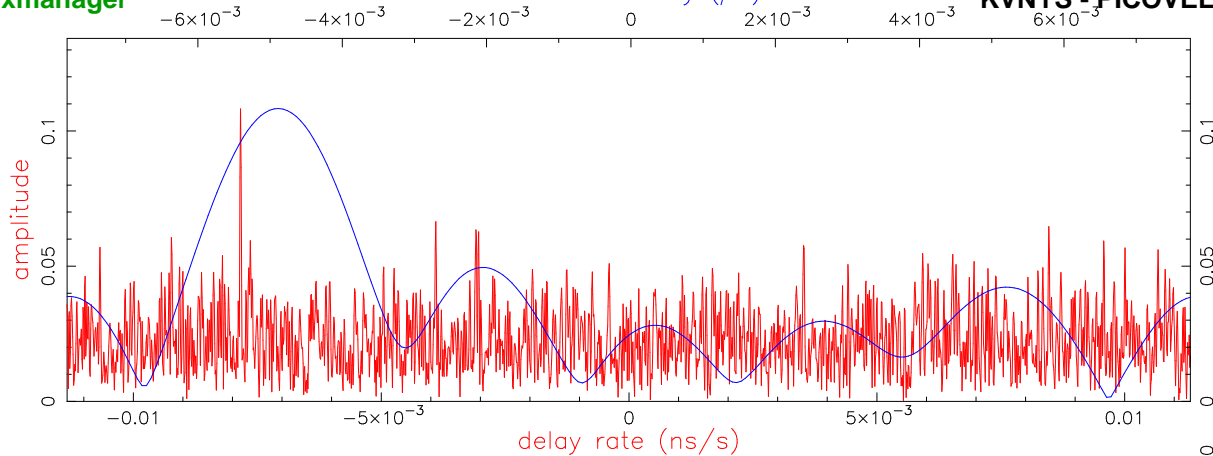
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, yP

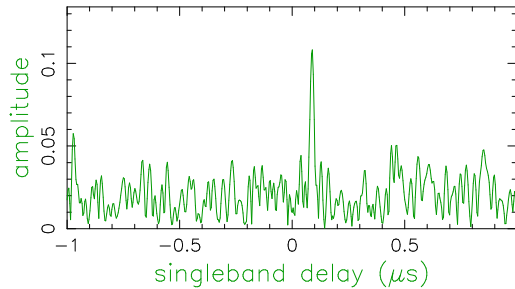
KVNYS - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

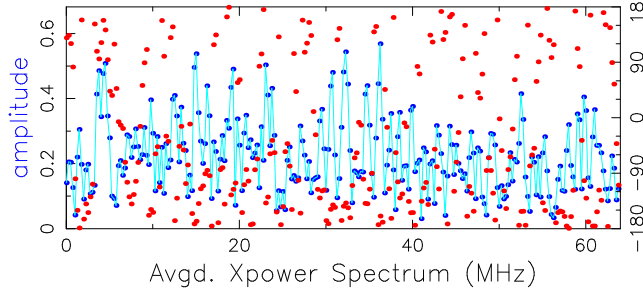


Fringe quality 0

SNR 6.0
 Int time 397.273
 Amp 0.134
 Phase -152.5
 PFD 4.8e-01
 Delays (us)
 SBD 0.088456
 MBD -0.004940
 Fringe rate (Hz)
 -0.675875
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

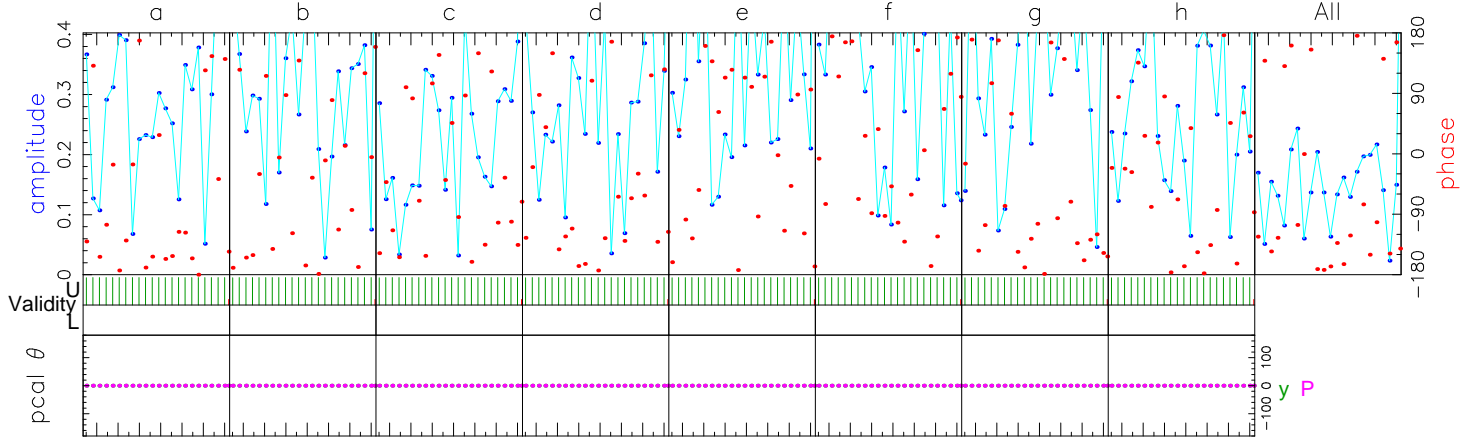


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090021.50
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224359
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-149.5	-158.8	-153.2	-146.8	-178.8	-140.7	-153.5	-107.1	Phase	-152.5
	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.0	Ampl.	0.1
	221.6	171.4	182.5	69.0	99.7	427.4	279.3	244.3	Sbd box	279.6
U/L	778/0	778/0	778/0	778/0	778/0	778/0	778/0	778/0	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	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	1.32221188398E+04	Apriori delay (usec)	1.32220300301E+04	Resid mbdelay (usec)	-4.94034E-03	+/-	1.8E-04
Sband delay (usec)	1.32221184861E+04	Apriori clock (usec)	1.4466257E+00	Resid sbdelay (usec)	8.84560E-02	+/-	1.4E-03
Phase delay (usec)	1.32220300252E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-4.91744E-06	+/-	6.2E-07
Delay rate (us/s)	-1.43330718915E+00	Apriori rate (us/s)	-1.43329934290E+00	Resid rate (us/s)	-7.84624E-06	+/-	2.7E-09
Total phase (deg)	134.4	Apriori accel (us/s/s)	-6.98191219171E-05	Resid phase (deg)	-152.5	+/-	19.2

ph/seg (deg)	52.4	Theor.	46.1	Amplitude	0.134 +/- 0.023	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	72.2		80.5	Search (2048X32)	0.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	22.3		27.2	Inc. seg. avg.	0.137	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	50.4		47.5	Inc. frq. avg.	0.123	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
						Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

y: az 284.8 el 66.2 pa 85.2 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10559.349 -4650.280 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/yP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/yP.W.119.1IFSML

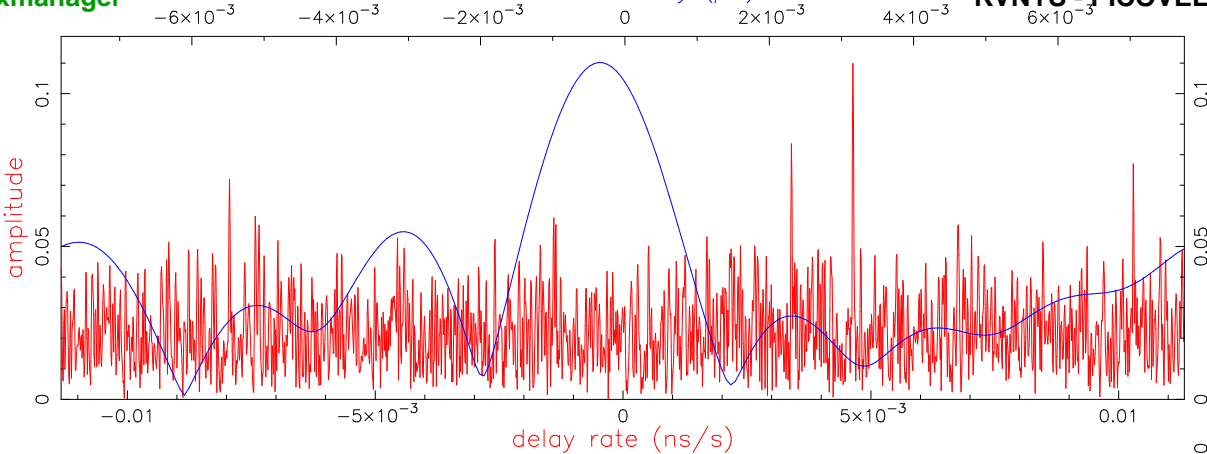
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, yP

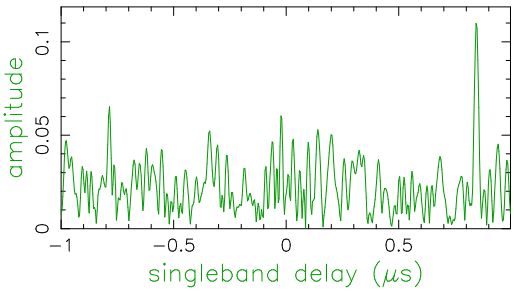
KVNYS - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

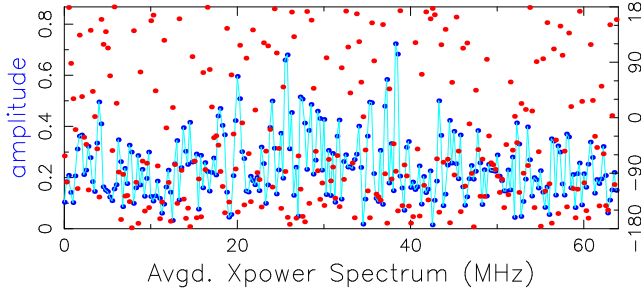


Fringe quality 0

SNR 6.0
 Int time 397.273
 Amp 0.119
 Phase -116.9
 PFD 3.4e-01
 Delays (us)
 SBD 0.845001
 MBD -0.000270
 Fringe rate (Hz)
 0.400178
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

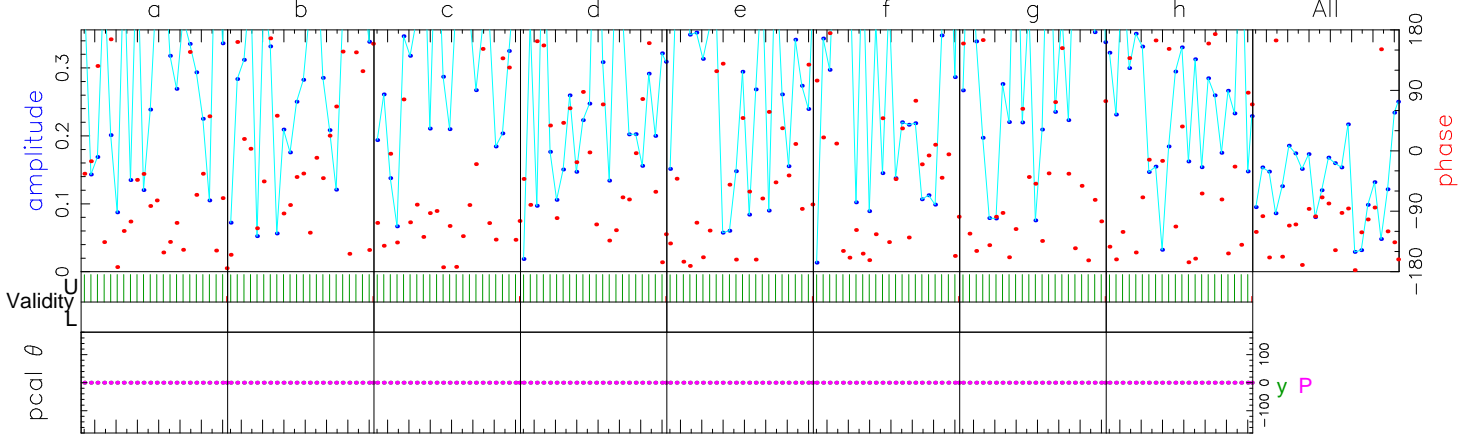


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090021.50
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224403
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-109.9	-115.7	-125.5	-105.5	-105.1	-98.5	-110.2	-145.7	Phase	-116.9
	0.2	0.0	0.2	0.1	0.1	0.1	0.2	0.1	Ampl.	0.1
	474.1	306.2	474.0	249.0	336.0	186.8	36.4	165.2	Sbd box	473.3
U/L	778/0	778/0	778/0	778/0	778/0	778/0	778/0	778/0	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	

Group delay (usec)(sbd)	1.32228735101E+04	Apriori delay (usec)	1.32220300301E+04	Resid mbdelay (usec)	-2.70014E-04	+/-	1.8E-04
Sband delay (usec)	1.32228750309E+04	Apriori clock (usec)	1.4466257E+00	Resid sbdelay (usec)	8.45001E-01	+/-	1.4E-03
Phase delay (usec)	1.32220300264E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-3.76847E-06	+/-	6.1E-07
Delay rate (us/s)	-1.43329469724E+00	Apriori rate (us/s)	-1.43329934290E+00	Resid rate (us/s)	4.64567E-06	+/-	2.7E-09
Total phase (deg)	170.0	Apriori accel (us/s/s)	-6.98191219171E-05	Resid phase (deg)	-116.9	+/-	19.0

ph/seg (deg)	RMS 39.6	Theor. 45.5	Amplitude 0.119 +/- 0.020	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	52.9	79.5	Search (2048X32) 0.105	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000	
ph/frq (deg)	16.4	26.9	Interp. 0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	53.8	46.9	Inc. seg. avg. 0.108	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011	
			Inc. frq. avg. 0.109	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite
					ion window (TEC) 0.00 0.00	

y: az 284.8 el 66.2 pa 85.2 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 10559.349 -4650.280 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/yP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/yP.W.135.1IFSML

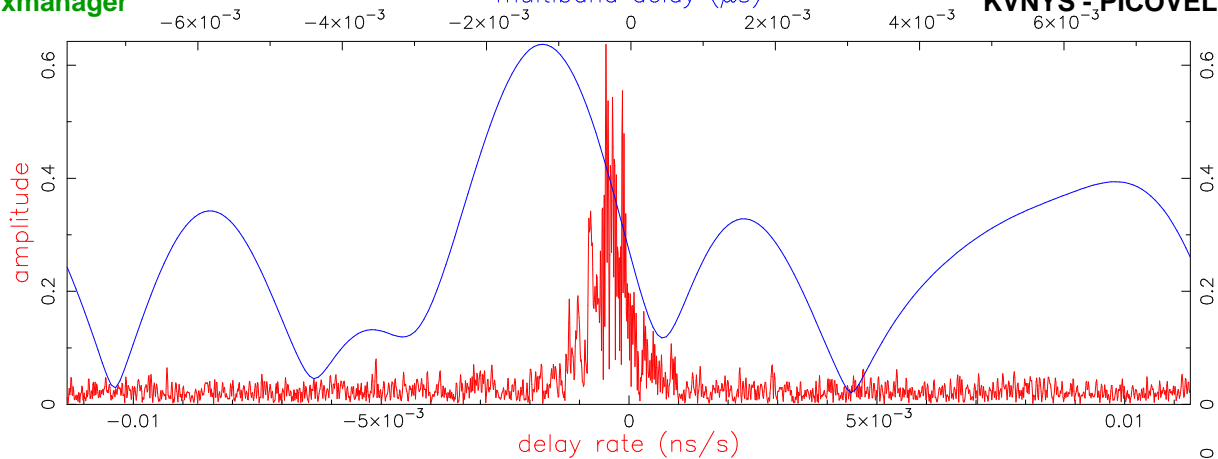
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, yP

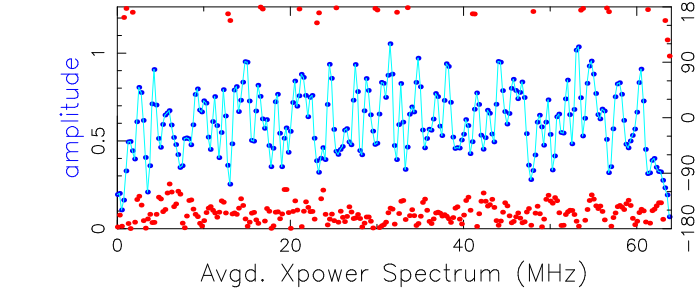
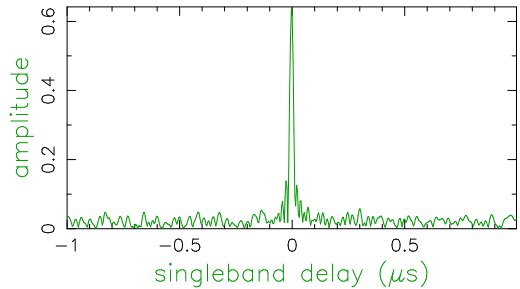
KVNYS - PICOVEL, fgroup W, pol LL

multiband delay (μ s)



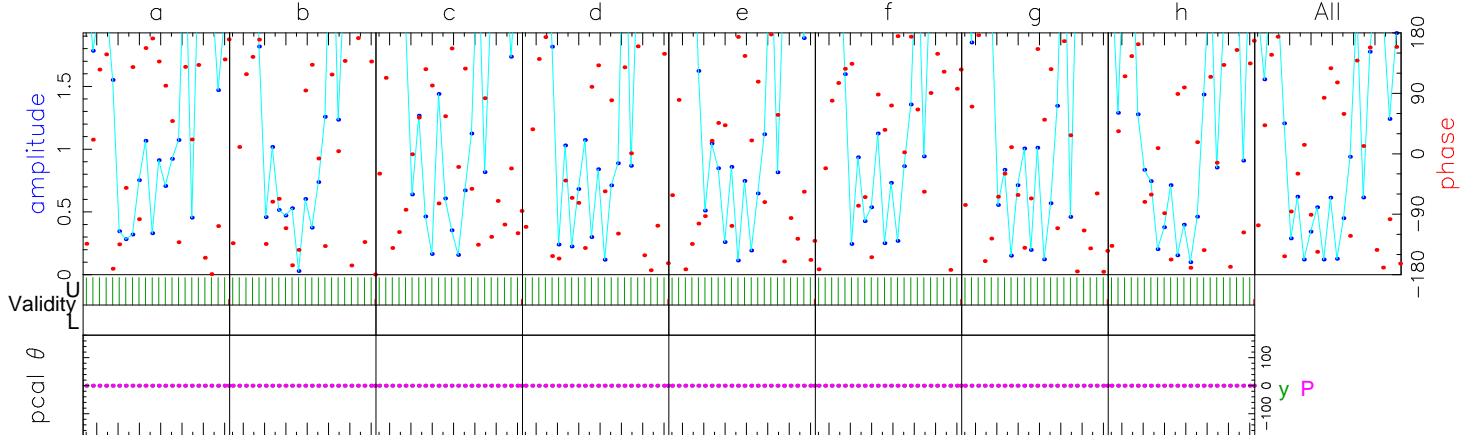
Fringe quality 4

SNR 35.0
 Int time 397.273
 Amp 0.642
 Phase -175.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.002780
 MBD -0.001195
 Fringe rate (Hz)
 -0.039914
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090021.50
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224353
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	778/0	778/0	778/0	778/0	778/0	778/0	778/0	778/0		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	1.32220288354E+04	Apriori delay (usec)	1.32220300301E+04	Resid mbdelay (usec)	-1.19472E-03	+/-	3.1E-05
Sband delay (usec)	1.32220272506E+04	Apriori clock (usec)	1.4466257E+00	Resid sbdelay (usec)	-2.77950E-03	+/-	2.5E-04
Phase delay (usec)	1.32220300245E+04	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	-5.64898E-06	+/-	1.1E-07
Delay rate (us/s)	-1.43329980627E+00	Apriori rate (us/s)	-1.43329934290E+00	Resid rate (us/s)	-4.63365E-07	+/-	4.6E-10
Total phase (deg)	111.7	Apriori accel (us/s/s)	-6.98191219171E-05	Resid phase (deg)	-175.2	+/-	3.3

ph/seg (deg)	88.2	Theor.	7.9	Amplitude	0.642 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	151.1	Search (2048X32)	0.615	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	51.1	Inc. seg. avg.	1.168	Inc. frq. avg.	0.863	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	36.8	Inc. frq. avg.	0.863	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	dr window (ns/s)	-0.011 0.011
y: az 284.8 el 66.2 pa 85.2		P: az 52.1 el 16.3 pa -55.5		u,v (fr/asec)	10559.349 -4650.280	ion window (TEC)	0.00 0.00				simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/yP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/yP.W.87.1IFSML

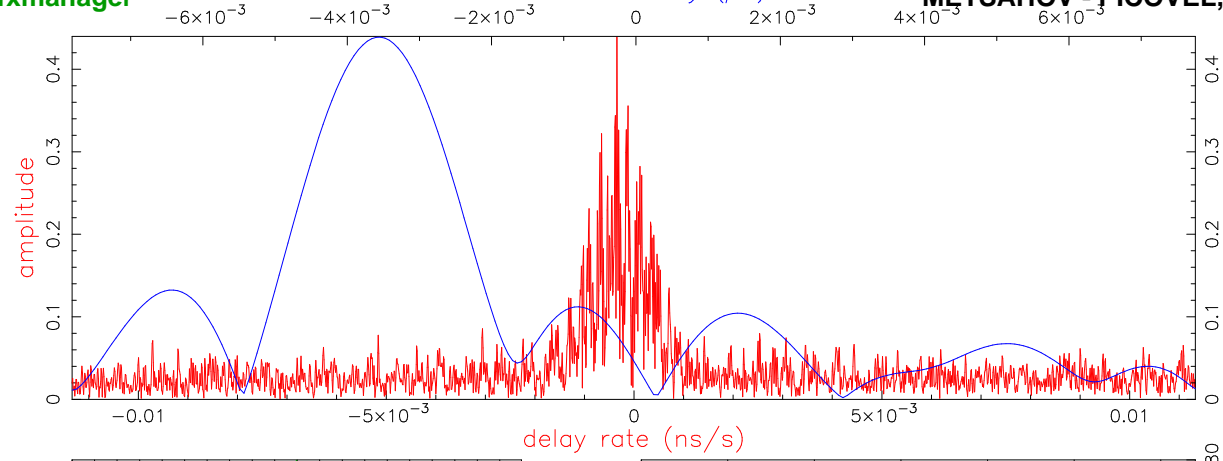
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, ZP

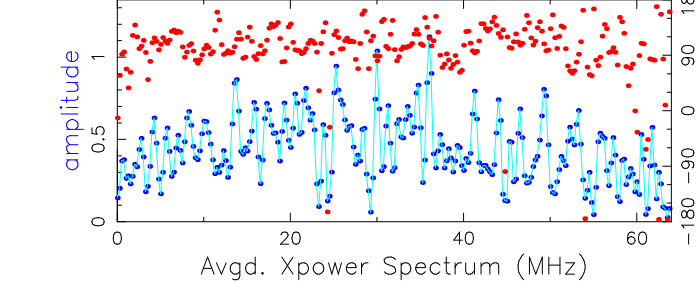
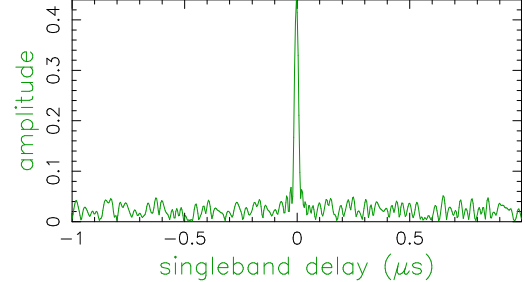
METSAHOV - PICOVEL, fgroup W, pol RR

multiband delay (μ s)



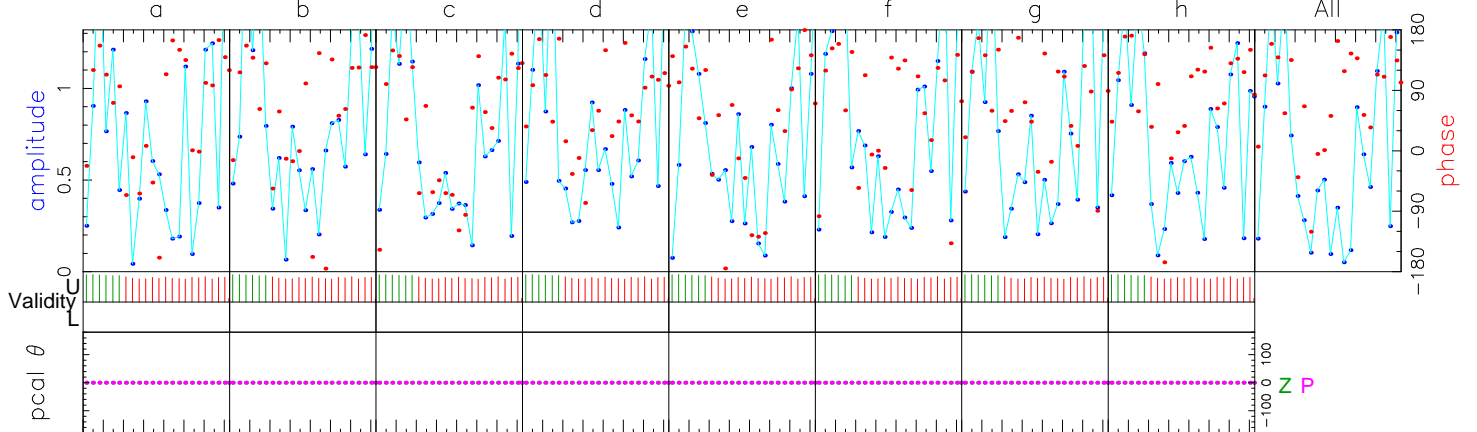
Fringe quality 9

SNR 23.4
 Int time 378.468
 Amp 0.440
 Phase 109.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.003325
 MBD -0.003548
 Fringe rate (Hz)
 -0.029290
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224357
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	8.26878916905E+03	Apriori delay (usec)	8.26879271725E+03	Resid mbdelay (usec)	-3.54820E-03	+/-	4.6E-05
Sband delay (usec)	8.26878939225E+03	Apriori clock (usec)	3.5076332E-01	Resid sbdelay (usec)	-3.32500E-03	+/-	3.7E-04
Phase delay (usec)	8.26879272078E+03	Apriori clockrate (us/s)	4.1600000E-07	Resid phdelay (usec)	3.53416E-06	+/-	1.6E-07
Delay rate (us/s)	-3.79133974199E-01	Apriori rate (us/s)	-3.79133634175E-01	Resid rate (us/s)	-3.40024E-07	+/-	6.5E-10
Total phase (deg)	348.6	Apriori accel (us/s/s)	-2.48149664963E-05	Resid phase (deg)	109.6	+/-	4.9

ph/seg (deg)	68.5	Theor.	11.7	Amplitude	0.440 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
amp/seg (%)	123.6	Search (2048X32)	0.418	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	9.3	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	16.1	Inc. seg. avg.	0.658	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
		Inc. frq. avg.	0.441	Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 81.2 el 42.3 pa -39.7 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 2786.667 149.725 simultaneous interpolator

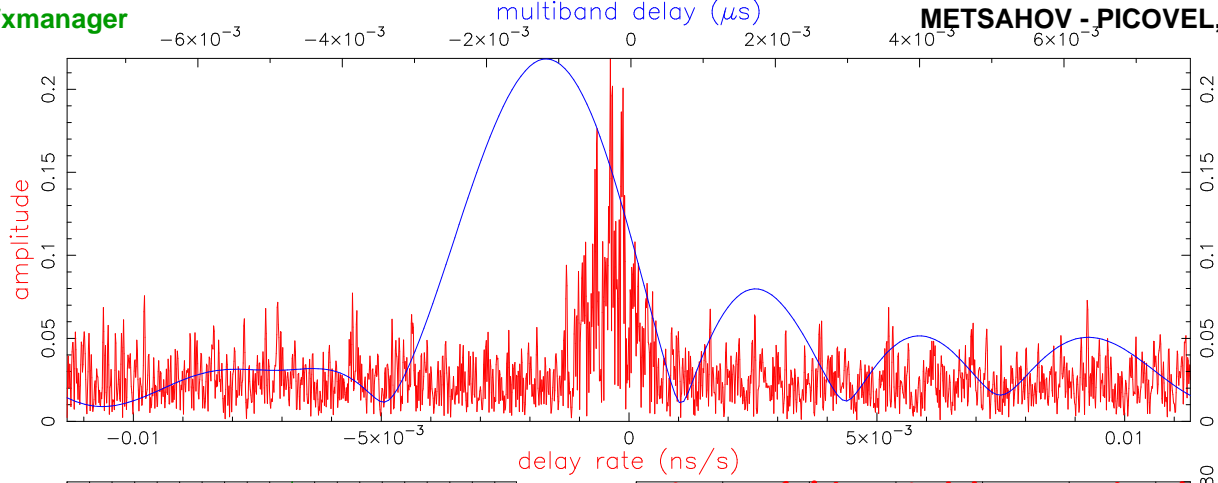
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/ZP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/ZP.W.106.11FSML

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, ZP

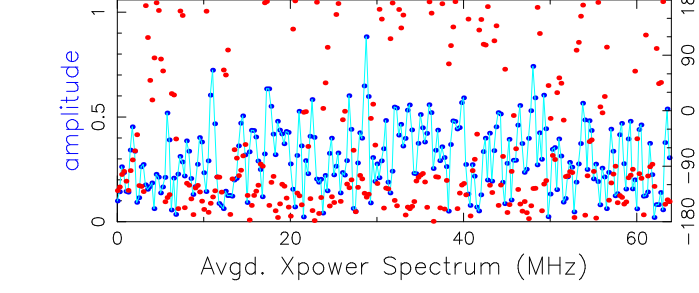
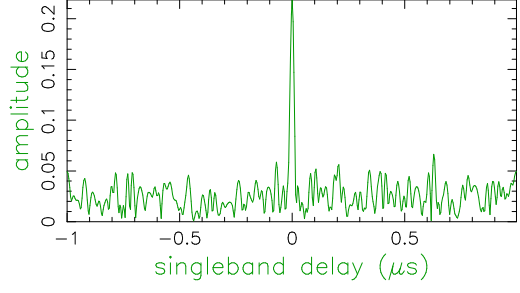
METSAHOV - PICOVEL, fgroup W, pol LR



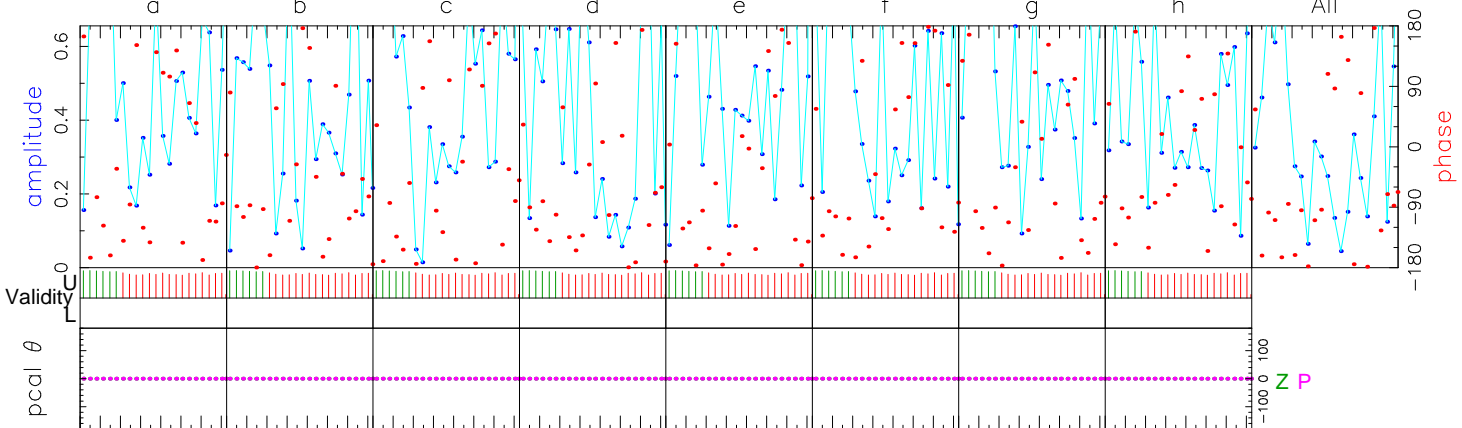
Fringe quality 9

SNR 11.6
Int time 378.468
Amp 0.219
Phase -131.7
PFD 1.5e-22
Delays (us)
SBD -0.000420
MBD -0.001175
Fringe rate (Hz)
-0.032410
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 090000.00
Stop 090659.84
FRT 090330.00
Corr/FF/build
2021:019:223932
2021:019:224400
2020:247:085004
RA & Dec (J2000)
16h42m58.809967s
+39°48'36.993984"



Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-145.5	-113.4	-138.9	-112.0	-143.6	-141.6	-144.3	-102.9	Phase	-131.7
	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	Ampl.	0.2
	256.4	257.0	258.1	256.9	257.1	256.9	257.7	456.5	Sbd box	256.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) 8.26879154274E+03 Apriori delay (usec) 8.26879271725E+03 Resid mbdelay (usec) -1.17451E-03 +/- 9.3E-05
 Sband delay (usec) 8.26879229725E+03 Apriori clock (usec) 3.5076332E-01 Resid sbdelay (usec) -4.20000E-04 +/- 7.4E-04
 Phase delay (usec) 8.26879271300E+03 Apriori clockrate (us/s) 4.1600000E-07 Resid phdelay (usec) -4.24696E-06 +/- 3.2E-07
 Delay rate (us/s) -3.79134010419E-01 Apriori rate (us/s) -3.79133634175E-01 Resid rate (us/s) -3.76243E-07 +/- 1.3E-09
 Total phase (deg) 107.3 Apriori accel (us/s/s) -2.48149664963E-05 Resid phase (deg) -131.7 +/- 9.9

RMS Theor. Amplitude 0.219 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 75.7 23.6 Search (2048X32) 0.215 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 123.9 41.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 19.1 13.9 Inc. seg. avg. 0.338 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 21.7 24.3 Inc. frq. avg. 0.221 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

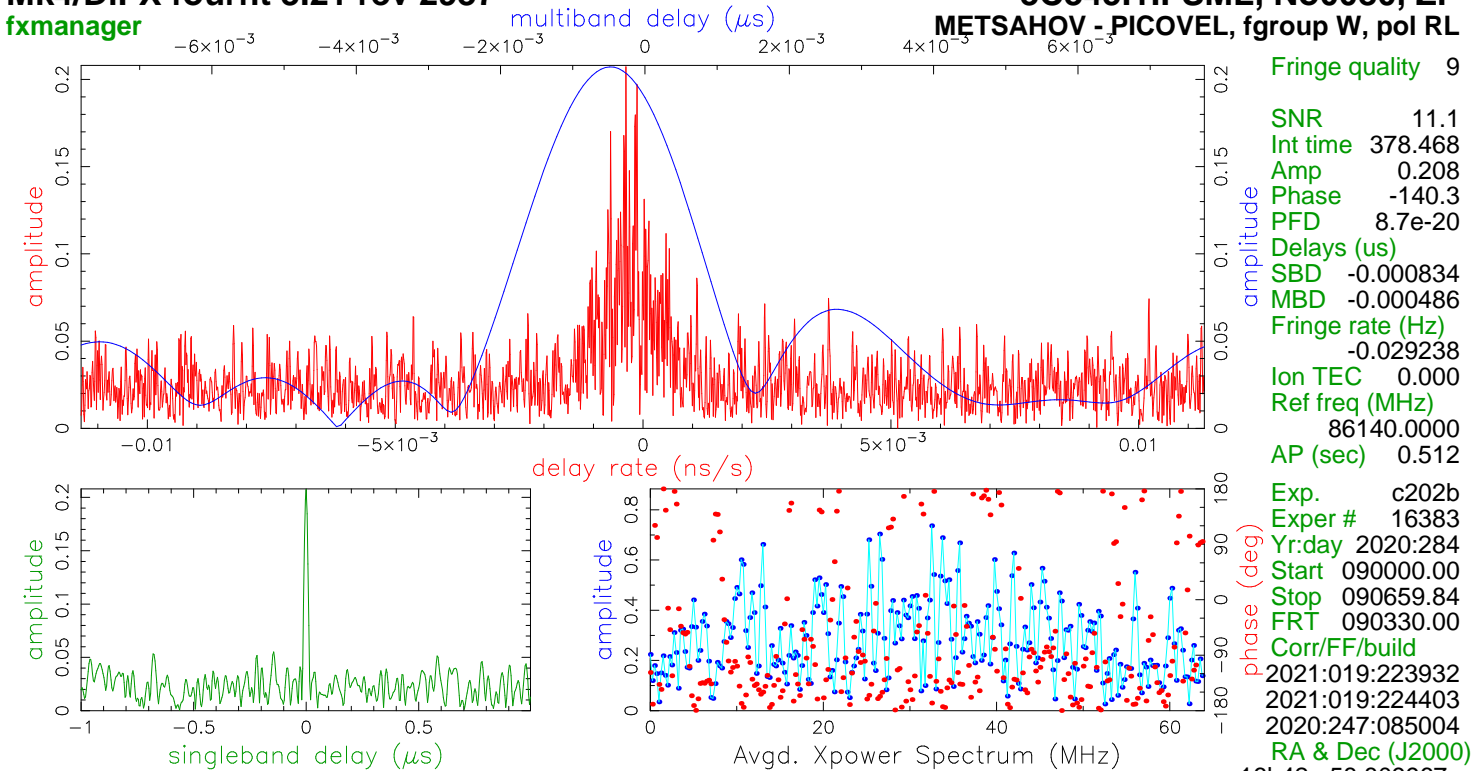
Z: az 81.2 el 42.3 pa -39.7 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 2786.667 149.725 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/ZP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/ZP.W.121.1IFSML

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, ZP

METSAHOV - PICOVEL, fgroup W, pol RL



Fringe quality 9

SNR 11.1

Int time 378.468

Amp 0.208

Phase -140.3

PFD 8.7e-20

Delays (us)

SBD -0.000834

MBD -0.000486

Fringe rate (Hz)

-0.029238

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Exper # 16383

Yr:day 2020:284

Start 090000.00

Stop 090659.84

FRT 090330.00

Corr/FF/build

2021:019:223932

2021:019:224403

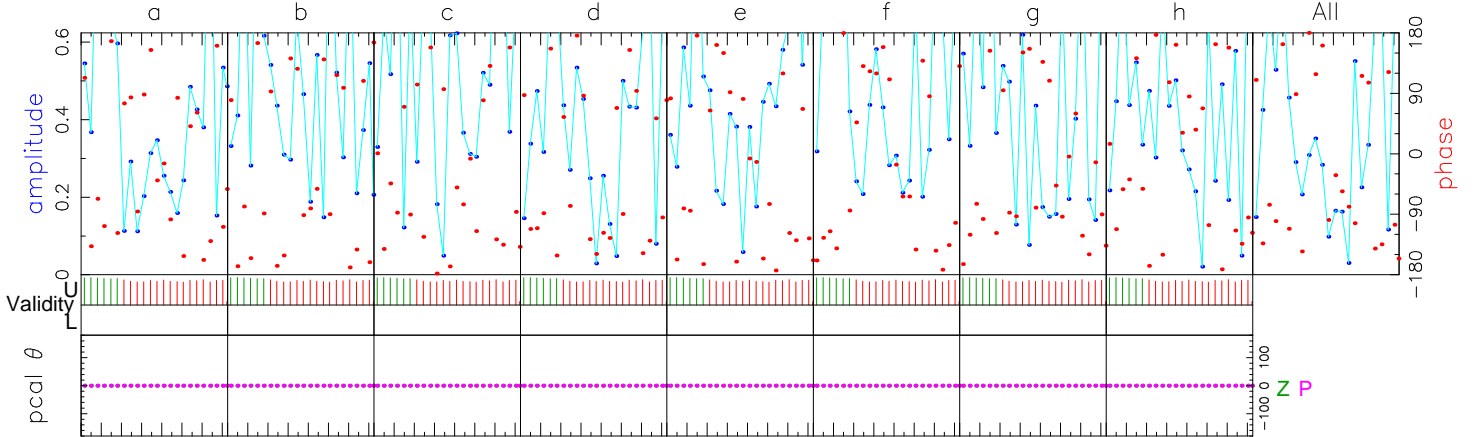
2020:247:085004

RA & Dec (J2000)

16h42m58.809967s

+39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-126.2	-160.9	-117.8	-148.1	-154.5	-154.7	-126.8	-129.0	Phase	-140.3
	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	Ampl.	0.2
	93.1	255.8	256.5	257.2	281.2	256.9	257.1	204.3	Sbd box	256.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	8.26879223126E+03		Apriori delay (usec)		8.26879271725E+03		Resid mbdelay (usec)		-4.85986E-04	+/- 9.8E-05
Sband delay (usec)	8.26879188350E+03		Apriori clock (usec)		3.5076332E-01		Resid sbdelay (usec)		-8.33750E-04	+/- 7.8E-04
Phase delay (usec)	8.26879271273E+03		Apriori clockrate (us/s)		4.1600000E-07		Resid phdelay (usec)		-4.52423E-06	+/- 3.3E-07
Delay rate (us/s)	-3.79133973601E-01		Apriori rate (us/s)		-3.79133634175E-01		Resid rate (us/s)		-3.39425E-07	+/- 1.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.48149664963E-05		Resid phase (deg)		-140.3	+/- 10.4

ph/seg (deg) 72.1 24.8 Search (2048X32) 0.196 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5

amp/seg (%) 135.3 43.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000

ph/frq (deg) 17.8 14.6 Inc. seg. avg. 0.346 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008

amp/frq (%) 21.3 25.6 Inc. frq. avg. 0.209 Sample rate(MISamp/s): 128 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011

Z: az 81.2 el 42.3 pa -39.7 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 2786.667 149.725 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/ZP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/ZP.W.139.1IFSML

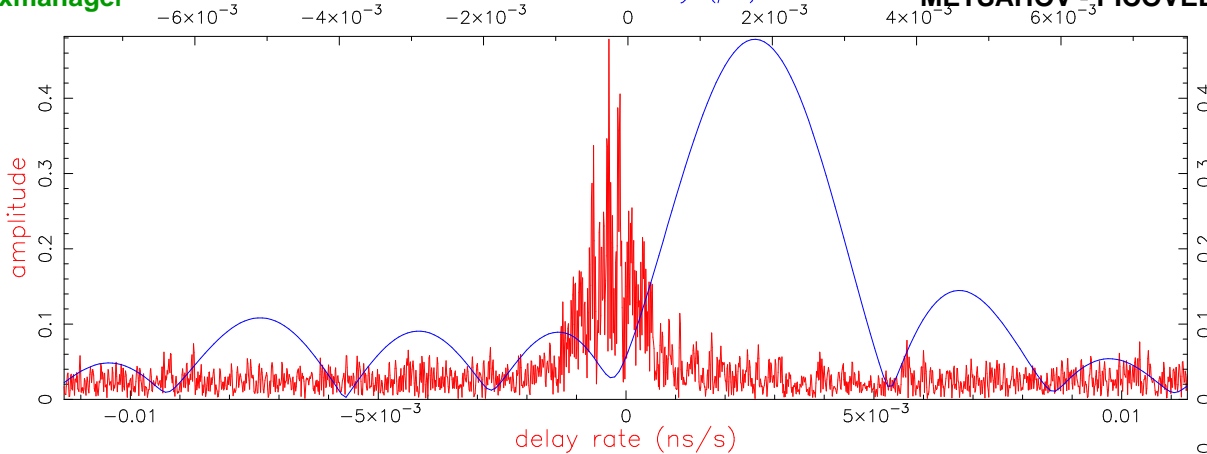
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

3C345.1IFSML, No0080, ZP

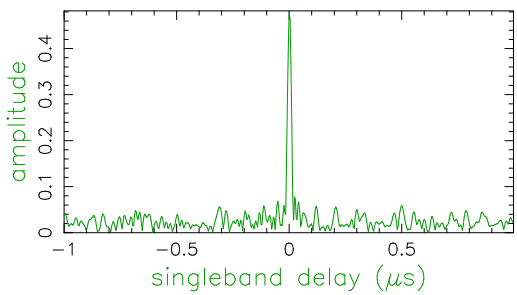
METSAHOV - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

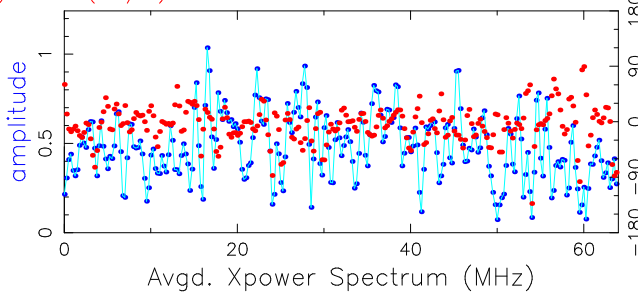


Fringe quality 7

SNR 25.6
 Int time 378.468
 Amp 0.482
 Phase -12.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.001178
 MBD 0.001791
 Fringe rate (Hz)
 -0.029190
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

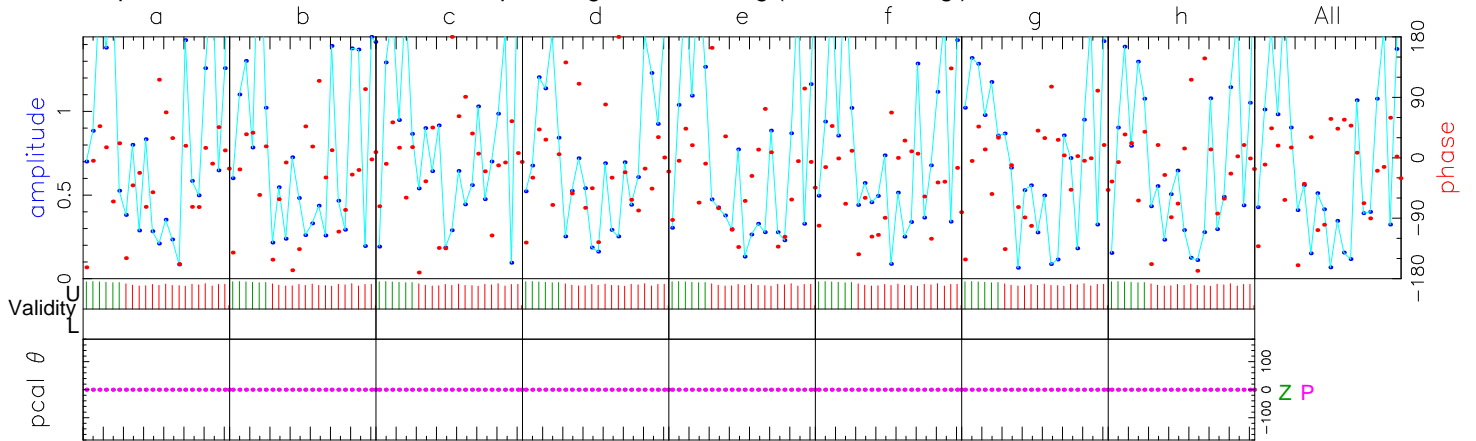


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 090000.00
 Stop 090659.84
 FRT 090330.00
 Corr/FF/build
 2021:019:223932
 2021:019:224353
 2020:247:085004
 RA & Dec (J2000)
 16h42m58.809967s
 +39°48'36.993984"

Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) 8.26879450864E+03 Apriori delay (usec) 8.26879271725E+03 Resid mbdelay (usec) 1.79139E-03 +/- 4.2E-05
 Sband delay (usec) 8.26879389475E+03 Apriori clock (usec) 3.5076332E-01 Resid sbdelay (usec) 1.17750E-03 +/- 3.4E-04
 Phase delay (usec) 8.26879271685E+03 Apriori clockrate (us/s) 4.1600000E-07 Resid phdelay (usec) -4.03096E-07 +/- 1.4E-07
 Delay rate (us/s) -3.79133973037E-01 Apriori rate (us/s) -3.79133634175E-01 Resid rate (us/s) -3.38861E-07 +/- 5.9E-10
 Total phase (deg) 226.5 Apriori accel (us/s/s) -2.48149664963E-05 Resid phase (deg) -12.5 +/- 4.5

RMS Theor. Amplitude 0.482 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 65.4 10.7 Search (2048X32) 0.443 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 113.5 18.7 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 10.0 6.3 Inc. seg. avg. 0.704 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 6.7 11.0 Inc. frq. avg. 0.481 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

Z: az 81.2 el 42.3 pa -39.7 P: az 52.1 el 16.3 pa -55.5 u,v (fr/asec) 2786.667 149.725 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0080/ZP..1IFSML Output file: /Exps/c202b/v1/v1_3mm/1234/No0080/ZP.W.92.1IFSML