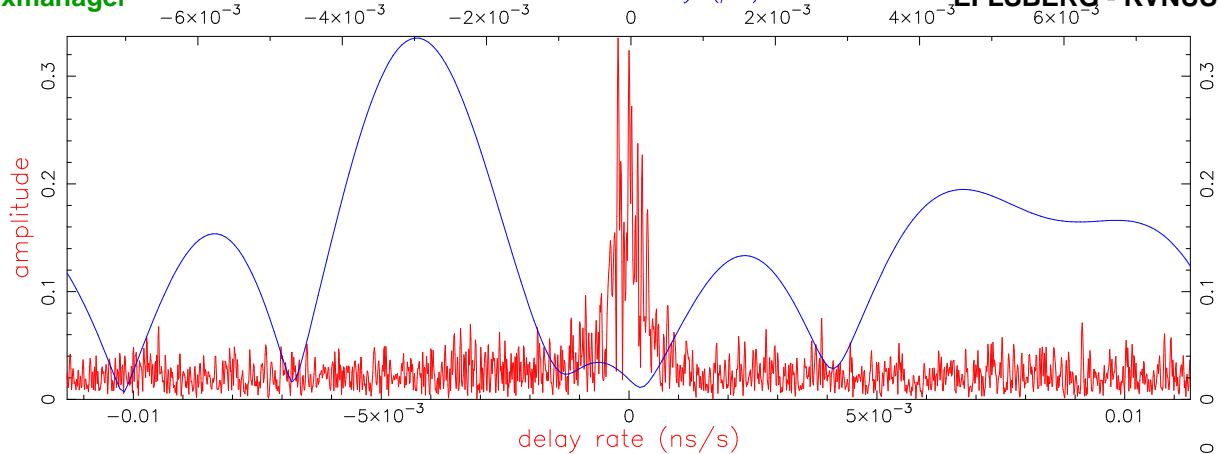
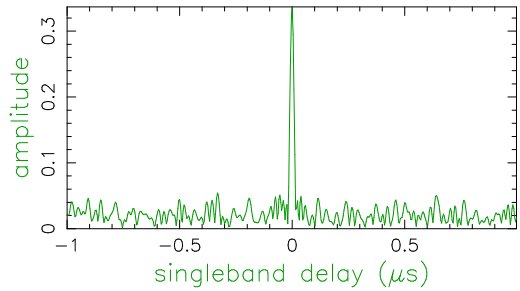


multiband delay (μ s)

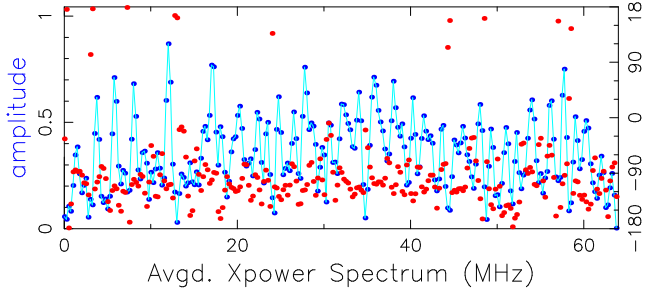


Fringe quality 8

SNR 18.9
 Int time 419.814
 Amp 0.337
 Phase -82.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.000881
 MBD -0.002991
 Fringe rate (Hz)
 -0.018988
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

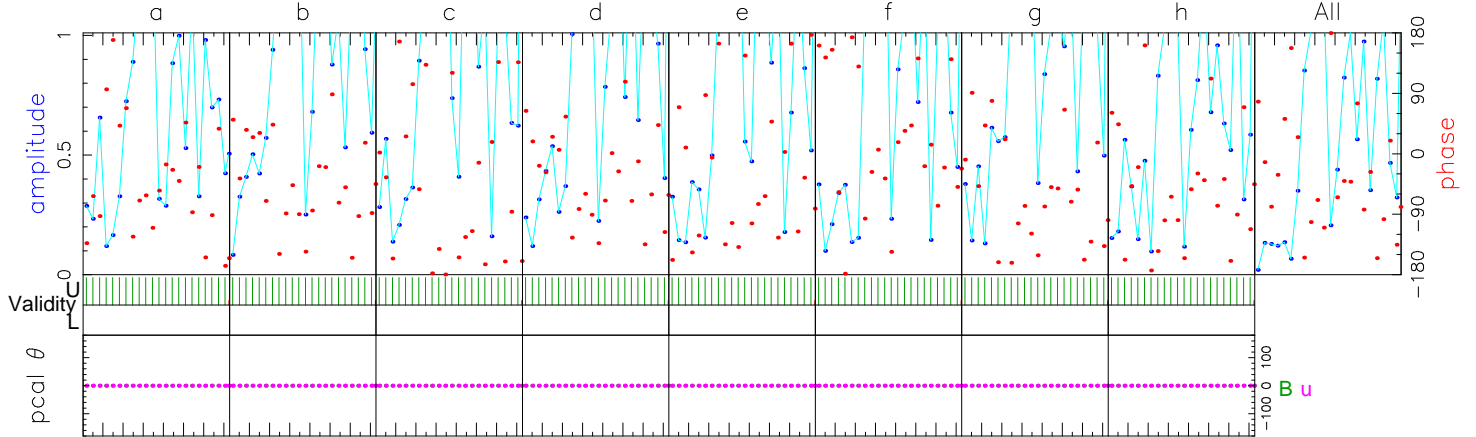


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031649
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-73.5	-59.5	-160.4	-55.0	-116.9	-16.7	-93.0	-82.4	Phase	-82.3
	0.3	0.5	0.5	0.5	0.4	0.4	0.4	0.4	Ampl.	0.4
	255.7	256.4	257.5	257.8	257.6	257.5	256.7	256.2	Sbd box	256.8
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	5.66491883133E+03		Apriori delay (usec)		5.66492182202E+03		Resid mbdelay (usec)		-2.99069E-03	+/- 5.7E-05
Sband delay (usec)	5.66492094102E+03		Apriori clock (usec)		7.5248733E+00		Resid sbdelay (usec)		-8.81000E-04	+/- 4.6E-04
Phase delay (usec)	5.66492181937E+03		Apriori clockrate (us/s)		-5.9999998E-07		Resid phdelay (usec)		-2.65469E-06	+/- 2.0E-07
Delay rate (us/s)	1.02030870922E+00		Apriori rate (us/s)		1.02030892965E+00		Resid rate (us/s)		-2.20432E-07	+/- 8.1E-10
Total phase (deg)	187.3		Apriori accel (us/s/s)		-1.17346072074E-05		Resid phase (deg)		-82.3	+/- 6.1

	RMS	Theor.	Amplitude	0.337 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	80.4	14.6	Search (2048X32)	0.332	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	135.8	25.4	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	46.7	8.6	Inc. seg. avg.	0.545	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	33.4	15.0	Inc. frq. avg.	0.431	Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00
					nlags: 256	t_cohere infinite

B: az 54.8 el 61.0 pa -84.1 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) -11212.636 -488.438 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bu..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bu.W.12.1IUDSP

Mk4/DiFX fourfit 3.21 rev 2937

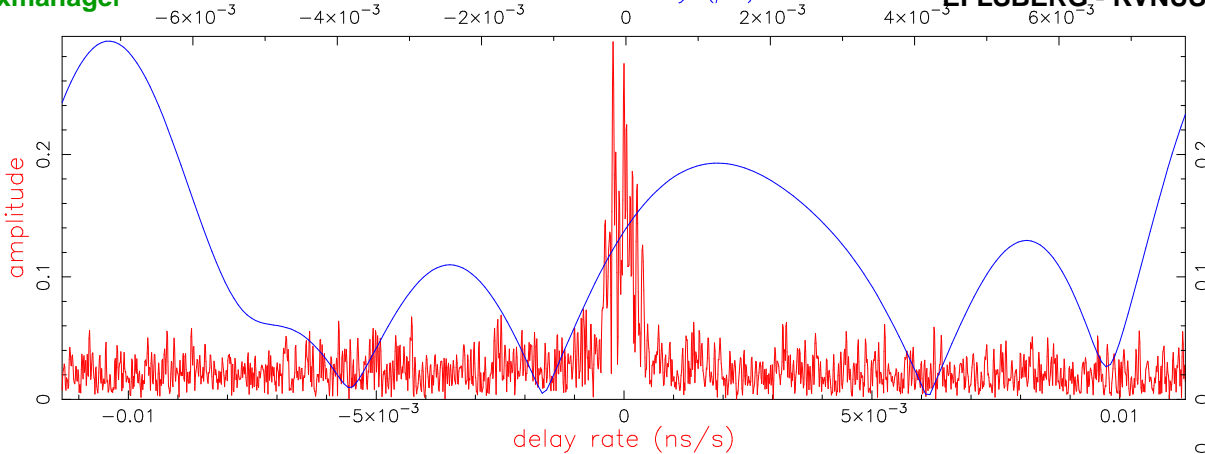
fxmanager

0102+584.1IUDSP, No0162, Bu

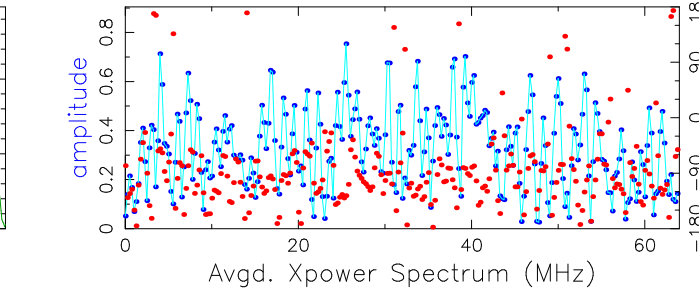
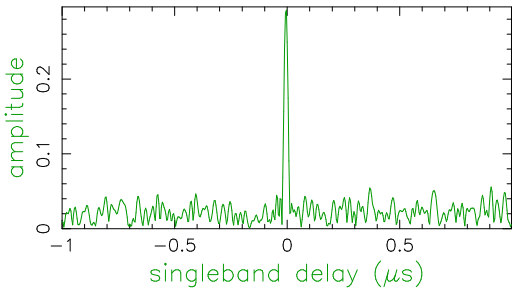
EFLSBERG₃- KVNUS, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 7

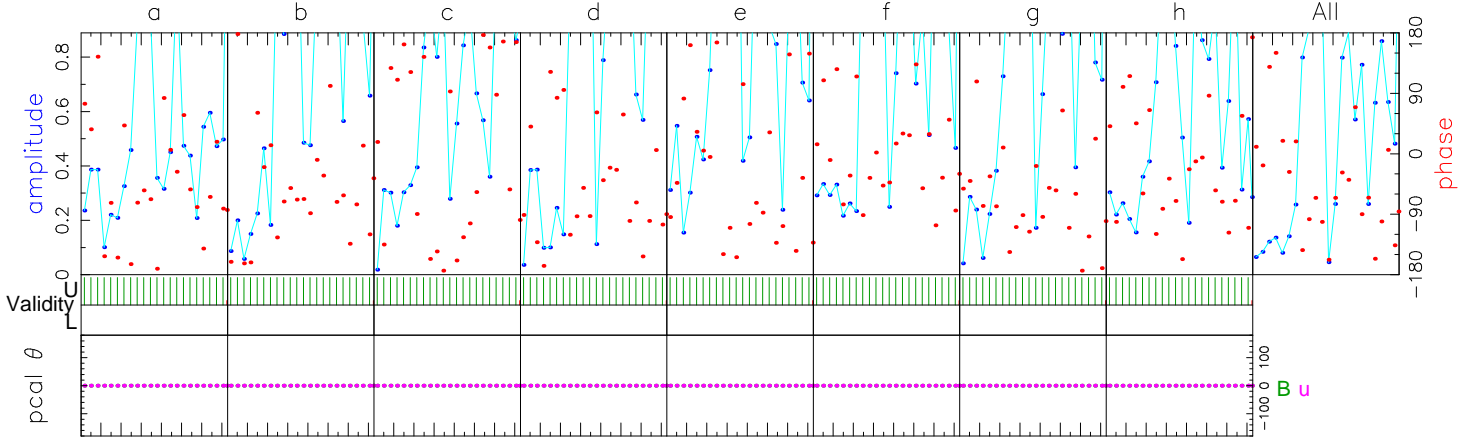


SNR 16.6
 Int time 419.814
 Amp 0.296
 Phase -79.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.00554
 MBD -0.007237
 Fringe rate (Hz)
 -0.018764
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031654
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-53.4	-66.1	-167.0	-70.5	-128.4	-20.6	-97.1	-54.2	Phase	-79.3
	0.2	0.5	0.3	0.5	0.4	0.4	0.5	0.3	Ampl.	0.4
	253.5	255.5	256.2	256.3	256.5	256.3	256.1	254.6	Sbd box	255.6
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	5.66491458492E+03		Apriori delay (usec)		5.66492182202E+03		Resid mbdelay (usec)		-7.23710E-03	+/- 6.5E-05
Sband delay (usec)	5.66491626777E+03		Apriori clock (usec)		7.5248733E+00		Resid sbdelay (usec)		-5.55425E-03	+/- 5.2E-04
Phase delay (usec)	5.66492181947E+03		Apriori clockrate (us/s)		-5.9999998E-07		Resid phdelay (usec)		-2.55686E-06	+/- 2.2E-07
Delay rate (us/s)	1.02030871182E+00		Apriori rate (us/s)		1.02030892965E+00		Resid rate (us/s)		-2.17835E-07	+/- 9.2E-10
Total phase (deg)	190.4		Apriori accel (us/s/s)		-1.17346072074E-05		Resid phase (deg)		-79.3	+/- 6.9

	RMS	Theor.	Amplitude	0.296 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
ph/seg (deg)	76.2	16.5	Search (2048X32)	0.282	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
amp/seg (%)	136.4	28.9	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
ph/frq (deg)	50.7	9.8	Inc. seg. avg.	0.479	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
amp/frq (%)	40.9	17.0	Inc. frq. avg.	0.379	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

B: az 54.8 el 61.0 pa -84.1 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) -11212.636 -488.438 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bu..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bu.W.34.1IUDSP

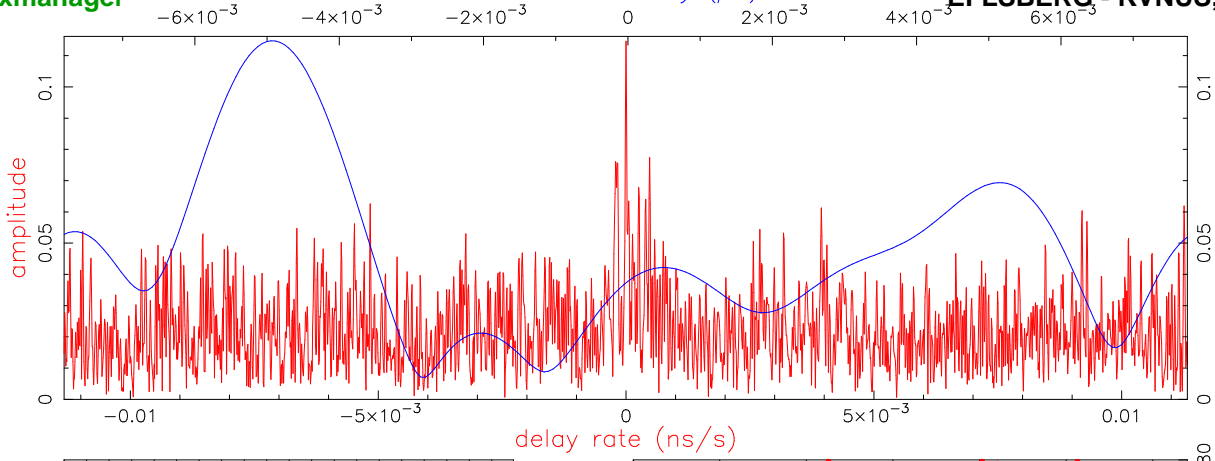
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

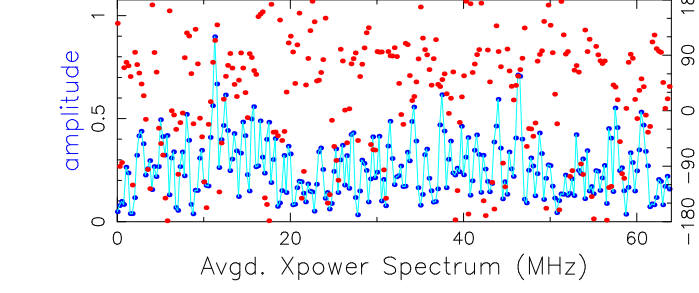
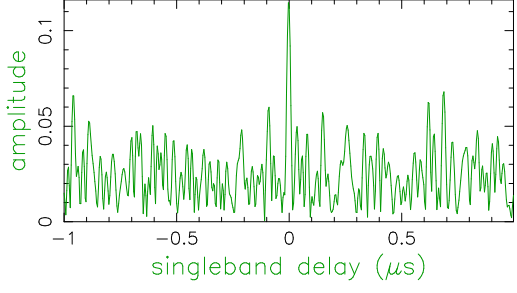
0102+584.1IUDSP, No0162, Bu

EFLSBERG - KVNUS, fgroup W, pol LR

multiband delay (μ s)

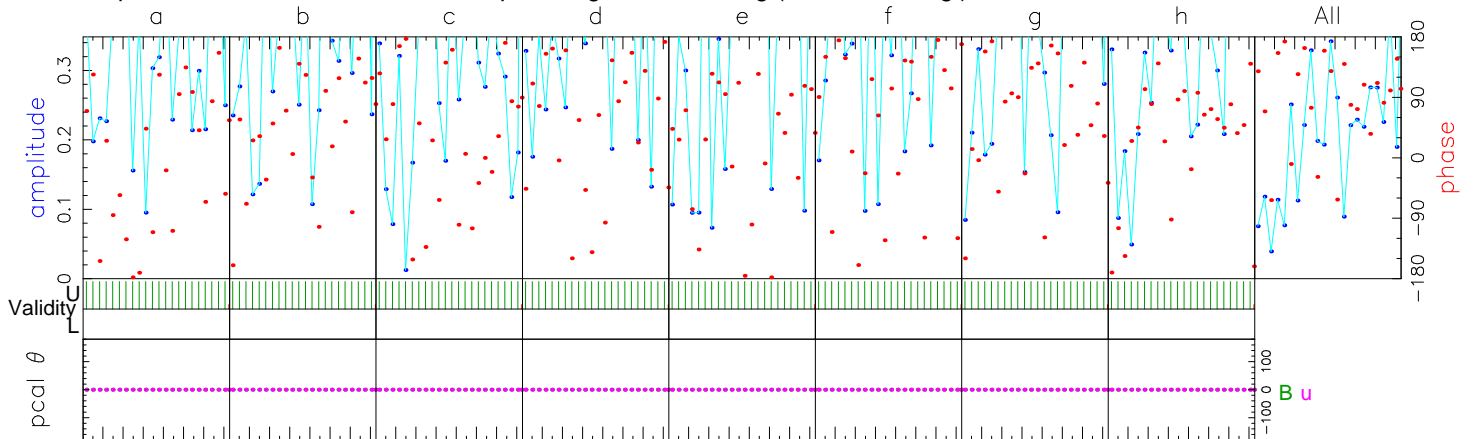


Fringe quality 0
 SNR 6.5
 Int time 419.814
 Amp 0.116
 Phase 97.2
 PFD 2.1e-02
 Delays (us)
 SBD -0.002388
 MBD -0.004876
 Fringe rate (Hz) 0.000401
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031659
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"



Avgd. Xpower Spectrum (MHz)

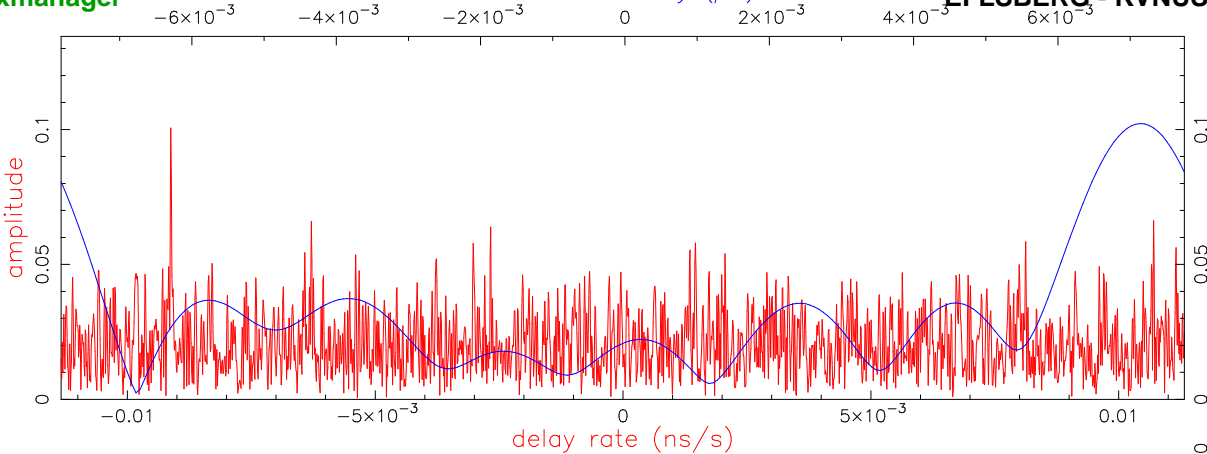
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	137.3	84.1	28.3	129.3	64.3	158.5	84.4	81.7	Phase	97.2
B	0.0	0.2	0.0	0.1	0.2	0.2	0.2	0.2	Ampl.	0.1
u	459.4	256.0	430.9	293.8	256.3	140.4	256.8	255.4	Sbd box	256.4
B	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	5.66491694618E+03		Apriori delay (usec)		5.66492182202E+03		Resid mbdelay (usec)		-4.87584E-03	+/- 1.7E-04
Sband delay (usec)	5.66491943377E+03		Apriori clock (usec)		7.5248733E+00		Resid sbdelay (usec)		-2.38825E-03	+/- 1.3E-03
Phase delay (usec)	5.66492182516E+03		Apriori clockrate (us/s)		-5.9999998E-07		Resid phdelay (usec)		3.13456E-06	+/- 5.7E-07
Delay rate (us/s)	1.02030893431E+00		Apriori rate (us/s)		1.02030892965E+00		Resid rate (us/s)		4.65593E-09	+/- 2.3E-09
Total phase (deg)	6.8		Apriori accel (us/s/s)		-1.17346072074E-05		Resid phase (deg)		97.2	+/- 17.6

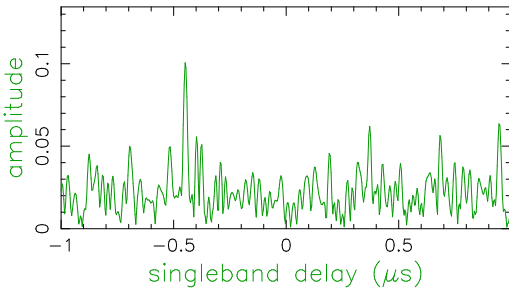
ph/seg (deg) 70.2 42.2 Search (2048X32) 0.111 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 109.5 73.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.2 24.9 Inc. seg. avg. 0.160 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 56.6 43.5 Inc. frq. avg. 0.125 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 54.8 el 61.0 pa -84.1 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) -11212.636 -488.438 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bu..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bu.W.62.1IUDSP

multiband delay (μ s)

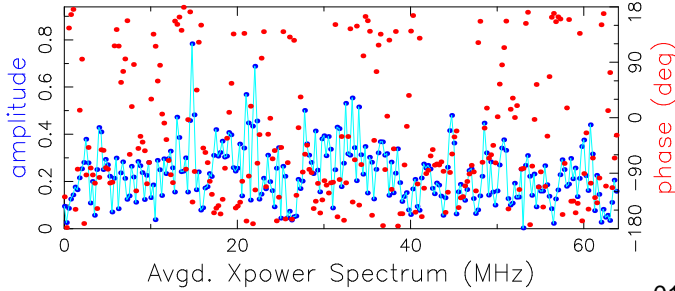


Fringe quality 0

SNR 5.7
 Int time 419.814
 Amp 0.135
 Phase -142.1
 PFD 9.6e-01
 Delays (us)
 SBD -0.448010
 MBD -0.008301
 Fringe rate (Hz)
 -0.786933
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

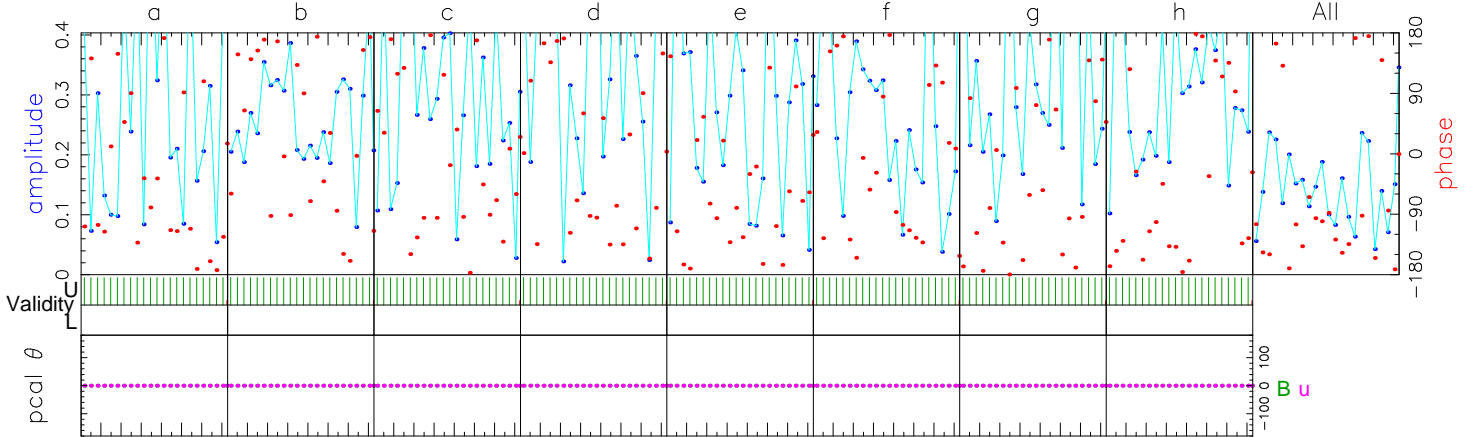


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031702
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-123.8	-165.0	-125.6	-122.1	-117.5	-160.5	-167.6	-153.8	Phase	-142.1
	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	Ampl.	0.1
	183.3	489.2	361.9	33.4	332.2	27.9	155.2	381.5	Sbd box	142.3
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	5.66447602124E+03	Apriori delay (usec)	5.66492182202E+03	Resid mbdelay (usec)	-8.30078E-03	+/-	1.9E-04
Sband delay (usec)	5.66447381177E+03	Apriori clock (usec)	7.5248733E+00	Resid sbdelay (usec)	-4.48010E-01	+/-	1.5E-03
Phase delay (usec)	5.66492181744E+03	Apriori clockrate (us/s)	-5.9999998E-07	Resid phdelay (usec)	-4.58274E-06	+/-	6.5E-07
Delay rate (us/s)	1.02029979414E+00	Apriori rate (us/s)	1.02030892965E+00	Resid rate (us/s)	-9.13552E-06	+/-	2.7E-09
Total phase (deg)	127.5	Apriori accel (us/s/s)	-1.17346072074E-05	Resid phase (deg)	-142.1	+/-	20.2

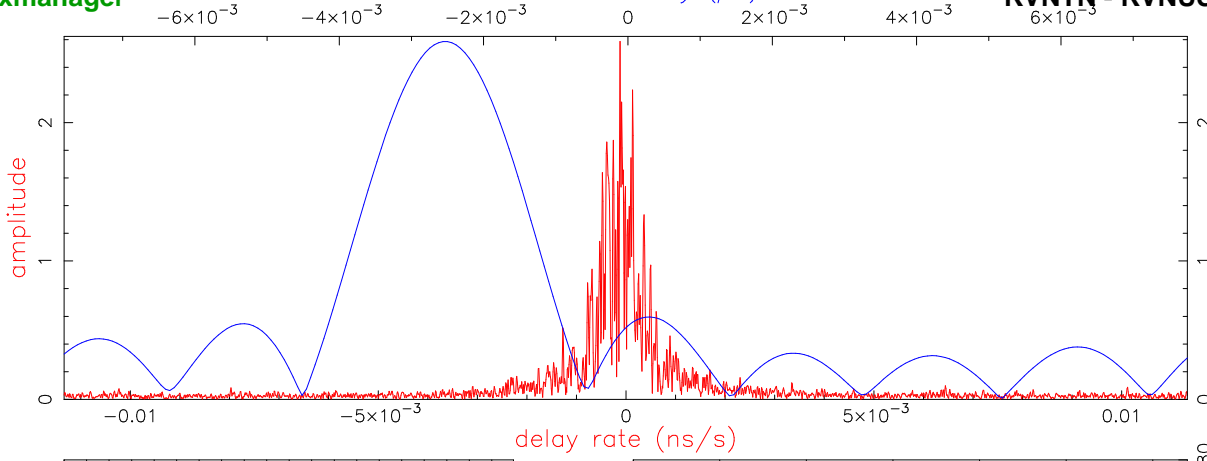
ph/seg (deg)	RMS 46.3	Theor. 48.4	Amplitude Search (2048X32)	0.135 +/- 0.024	0.099	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	72.4	84.4	Interp.	0.000	0.140	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	23.3	28.5	Inc. seg. avg.	0.140	0.127	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	33.5	49.8	Inc. frq. avg.	0.127		Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

B: az 54.8 el 61.0 pa -84.1 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) -11212.636 -488.438 simultaneous interpolator

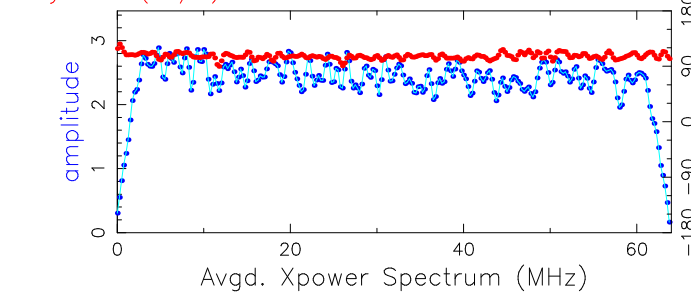
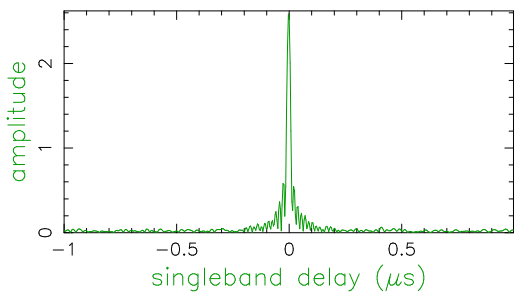
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bu..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bu.W.79.1IUDSP

multiband delay (μ s)

Fringe quality 5

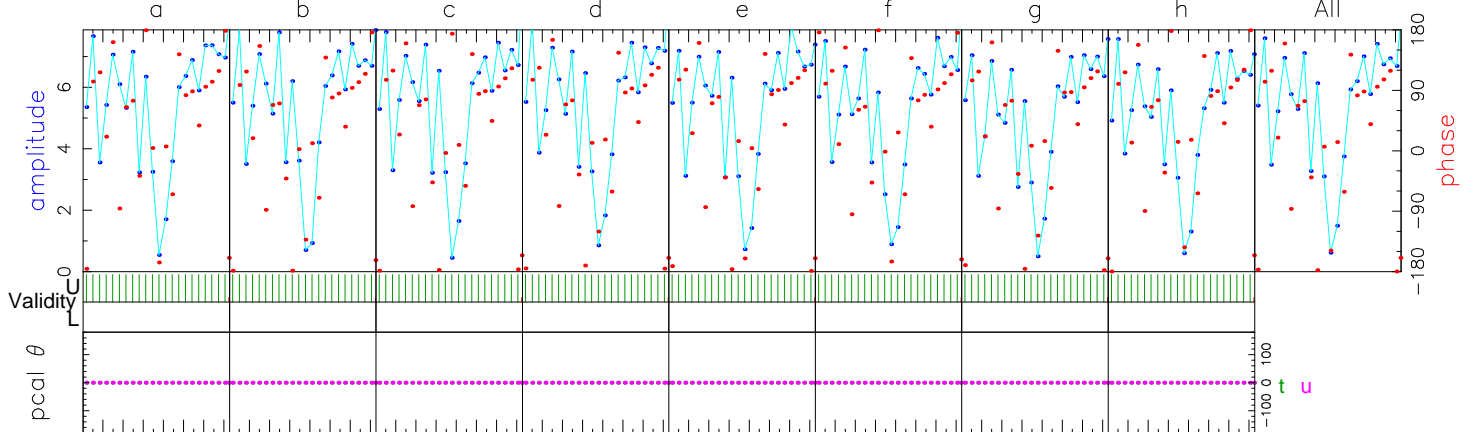


SNR 147.0
 Int time 419.827
 Amp 2.623
 Phase 107.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.002438
 MBD -0.002533
 Fringe rate (Hz)
 -0.010680
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031649
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



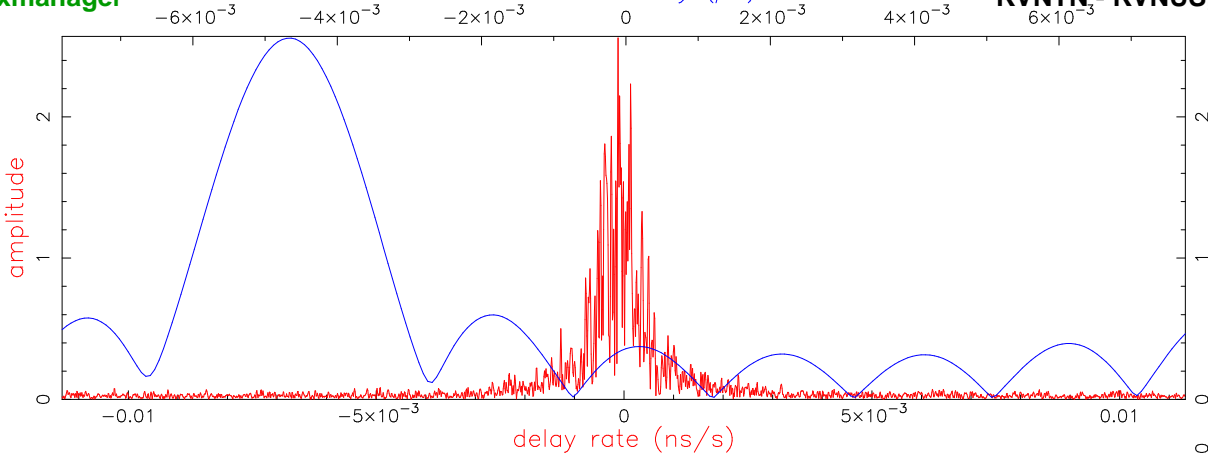
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	107.0	107.0
u	1000	1000	1000	1000	1000	1000	1000	1000	2.6	2.6
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	256.4	256.4
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-8.80119634102E+01				-8.80094307731E+01				-2.53264E-03	+/- 7.4E-06
Sband delay (usec)	-8.80118687731E+01				-1.1920629E+00				-2.43800E-03	+/- 5.9E-05
Phase delay (usec)	-8.80094273218E+01				-2.9999999E-07				3.45136E-06	+/- 2.5E-08
Delay rate (us/s)	-7.43299779431E-03				-7.43287381090E-03				-1.239983E-07	+/- 1.0E-10
Total phase (deg)			-25.0		-2.65942745568E-06				107.0	+/- 0.8
	RMS	Theor.	Amplitude	2.623 +/- 0.018						
ph/seg (deg)	81.2	1.9	Search (2048X32)	2.533						
amp/seg (%)	127.6	3.3	Interp.	0.000						
ph/frq (deg)	3.5	1.1	Inc. seg. avg.	5.377						
amp/frq (%)	2.7	1.9	Inc. frq. avg.	2.590						
t: az 321.4 el 38.0 pa 87.5			u: az 320.5 el 38.3 pa 82.0							
Control file: cf_1234_gmva			Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tu..1IUDSP							

Group delay (usec)(sbd) -8.80119634102E+01 Apriori delay (usec) -8.80094307731E+01 Resid mbdelay (usec) -2.53264E-03 +/- 7.4E-06
 Sband delay (usec) -8.80118687731E+01 Apriori clock (usec) -1.1920629E+00 Resid sbdelay (usec) -2.43800E-03 +/- 5.9E-05
 Phase delay (usec) -8.80094273218E+01 Apriori clockrate (us/s) -2.9999999E-07 Resid phdelay (usec) 3.45136E-06 +/- 2.5E-08
 Delay rate (us/s) -7.43299779431E-03 Apriori rate (us/s) -7.43287381090E-03 Resid rate (us/s) -1.239983E-07 +/- 1.0E-10
 Total phase (deg) -25.0 Apriori accel (us/s/s) -2.65942745568E-06 Resid phase (deg) 107.0 +/- 0.8

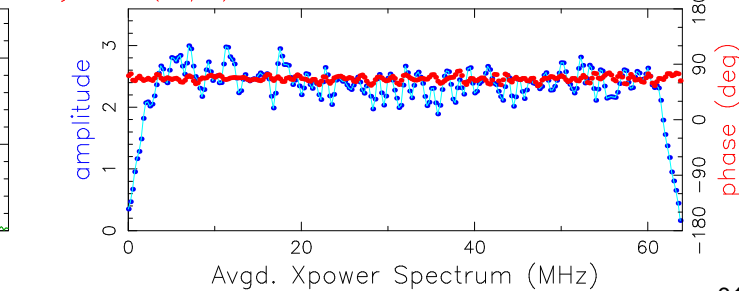
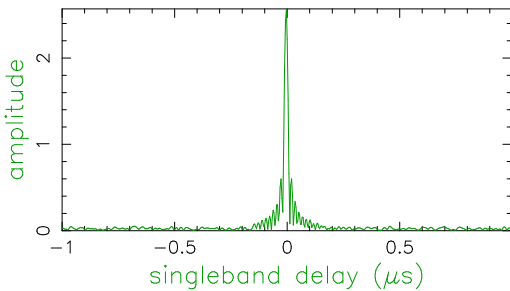
ph/seg (deg) 81.2 1.9 Search (2048X32) 2.533 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 127.6 3.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.5 1.1 Inc. seg. avg. 5.377 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.7 1.9 Inc. frq. avg. 2.590 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 321.4 el 38.0 pa 87.5 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) 75.950 -492.071 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tu..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tu.W.14.1IUDSP

multiband delay (μ s)

Fringe quality 5

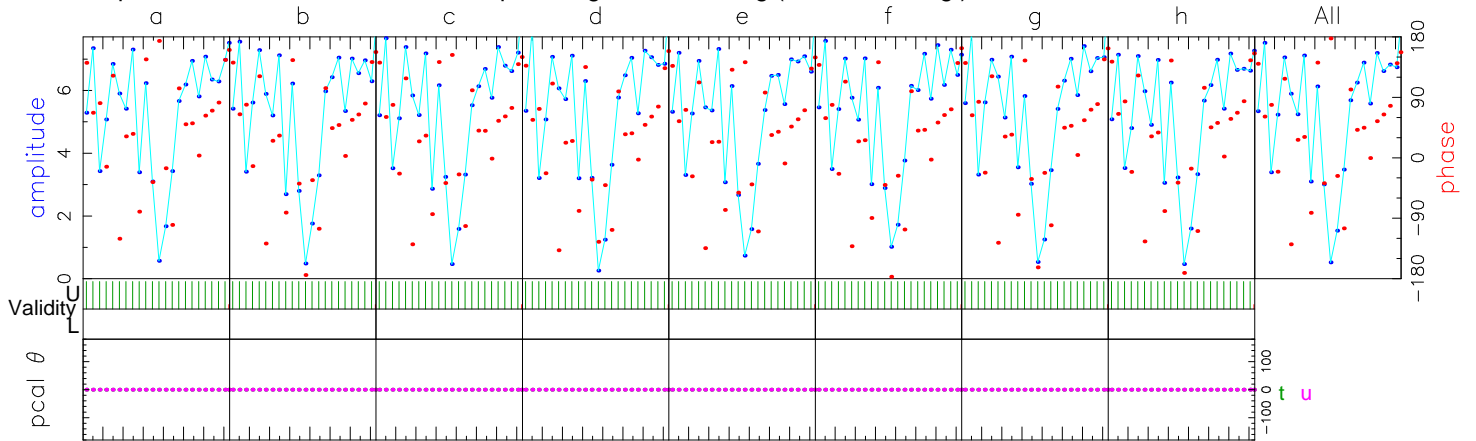


SNR 144.0
Int time 419.827
Amp 2.570
Phase 66.1
PFD 0.0e+00
Delays (us)
SBD -0.004722
MBD -0.004665
Fringe rate (Hz)
-0.010691
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031654
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-8.80140957852E+01									
Sband delay (usec)	-8.80141530231E+01									
Phase delay (usec)	-8.80094286413E+01									
Delay rate (us/s)	-7.43299791831E-03									
Total phase (deg)			-65.9							
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
ion window (TEC)										
sb window (us)	-1.000	1.000								
mb window (us)	-0.008	0.008								
dr window (ns/s)	-0.011	0.011								
ion window (TEC)	0.00	0.00								

ph/seg (deg) 81.9 1.9 Search (2048X32) 2.444 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 129.9 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) 5.1 1.1 Inc. seg. avg. 5.305 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 1.7 2.0 Inc. frq. avg. 2.566 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
t: az 321.4 el 38.0 pa 87.5 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) 75.950 -492.071 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tu..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tu.W.35.1IUDSP simultaneous interpolator

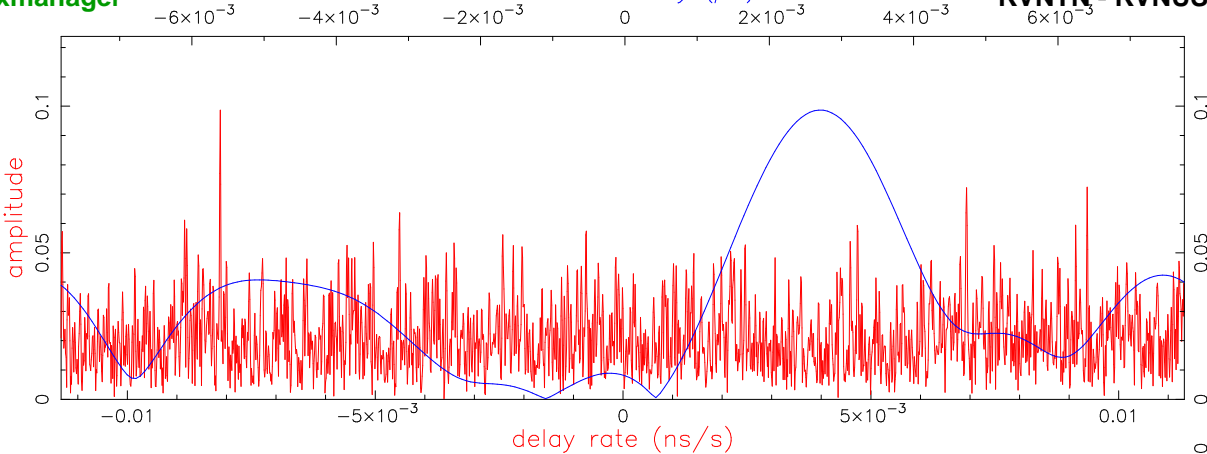
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUOSP, No0162, tu

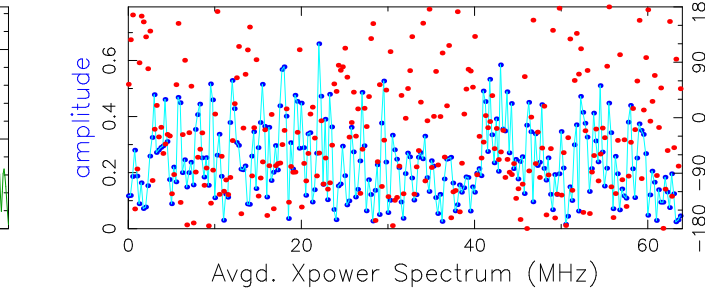
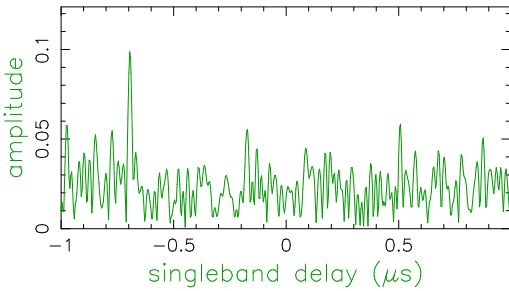
KVNTN - KVNUS, fgroup W, pol LR

multiband delay (μ s)



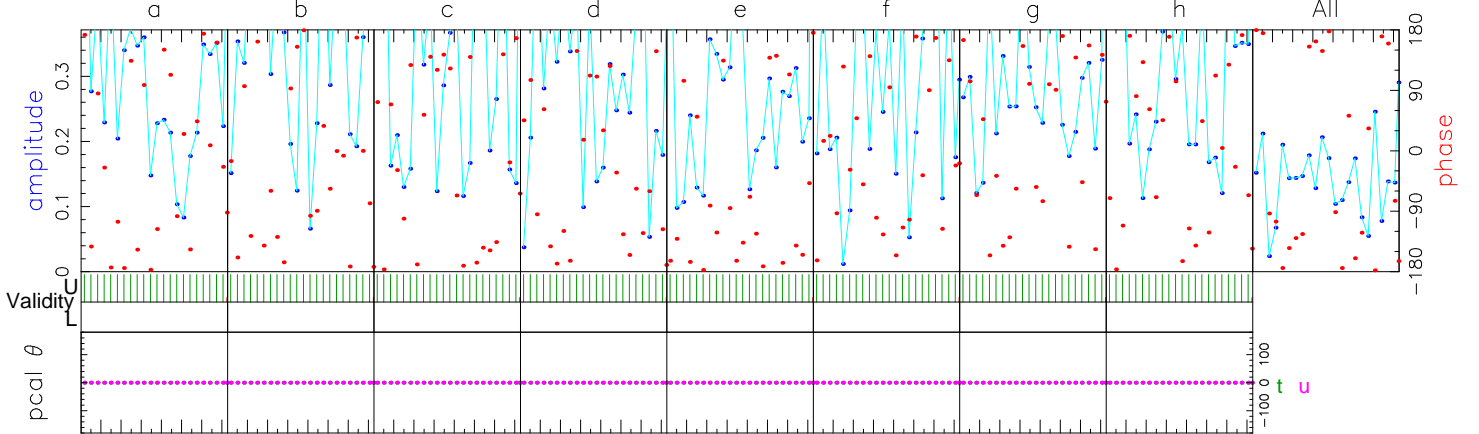
Fringe quality 0

SNR 5.6
 Int time 419.827
 Amp 0.124
 Phase -170.1
 PFD 1.0e+00
 Delays (us)
 SBD -0.694282
 MBD 0.002735
 Fringe rate (Hz)
 -0.700885
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031657
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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

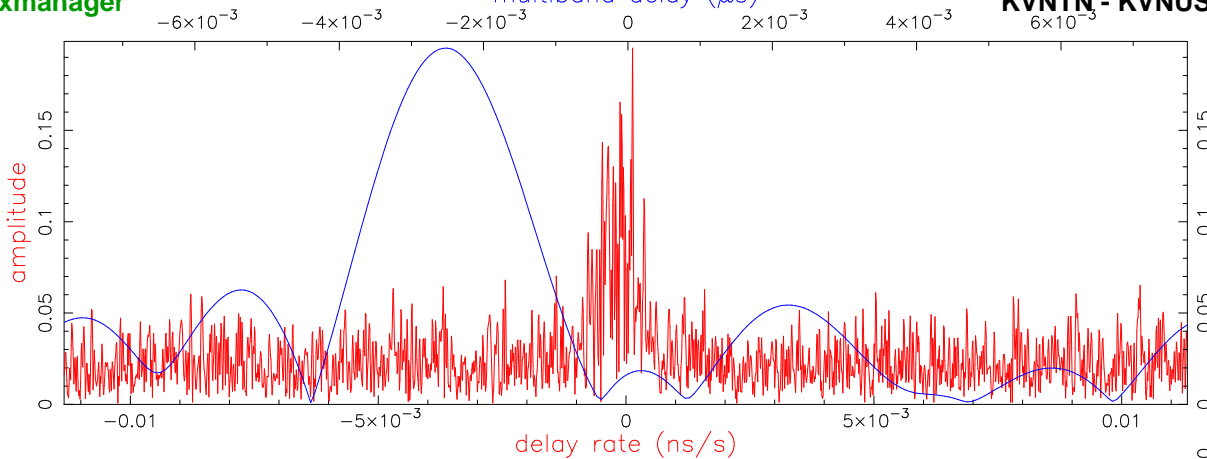


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
tu	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
u	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.87098206879E+01								2.73509E-03	+/- 2.0E-04
Sband delay (usec)	-8.87037130231E+01								-6.94282E-01	+/- 1.5E-03
Phase delay (usec)	-8.80094362600E+01								-5.48686E-06	+/- 6.6E-07
Delay rate (us/s)	-7.44101038707E-03								-8.13658E-06	+/- 2.7E-09
Total phase (deg)			-302.2						-170.1	+/- 20.6
Apriori delay (usec)										
Apriori clock (usec)										
Apriori clockrate (us/s)										
Apriori rate (us/s)										
Apriori accel (us/s/s)										
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
nlags: 256										
t_cohere infinite										
sb window (us)									-1.000	1.000
mb window (us)									-0.008	0.008
dr window (ns/s)									-0.011	0.011
ion window (TEC)									0.00	0.00

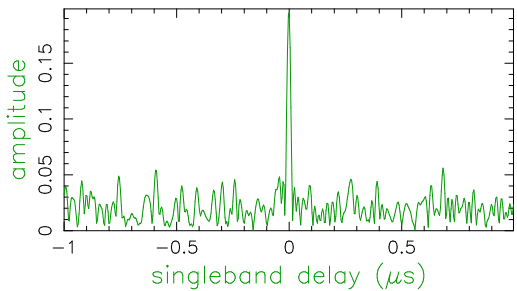
ph/seg (deg) 60.6 49.4 Search (2048X32) 0.098 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 68.5 86.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 27.0 29.2 Inc. seg. avg. 0.127 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 45.9 50.9 Inc. frq. avg. 0.119 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 321.4 el 38.0 pa 87.5 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) 75.950 -492.071 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tu..1IUOSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tu.W.53.1IUOSP

multiband delay (μ s)

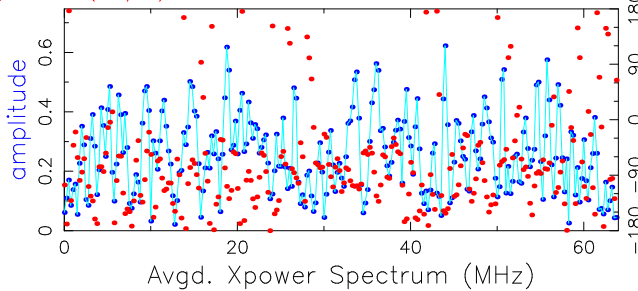
Fringe quality 9



SNR 11.1
Int time 419.827
Amp 0.199
Phase -89.7
PFD 4.1e-20
Delays (us)
SBD -0.001809
MBD -0.002526
Fringe rate (Hz)
0.011303
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

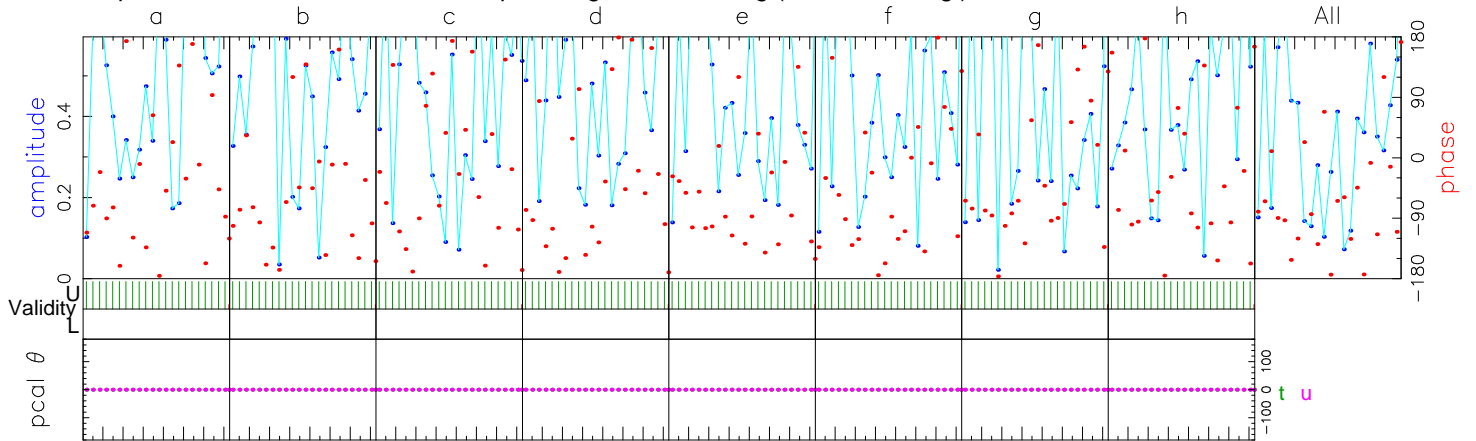


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031701
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-76.9	-96.1	-109.9	-98.2	-76.0	-78.1	-91.7	-95.1	Phase	-89.7
	0.2	0.2	0.1	0.2	0.3	0.1	0.2	0.2	Ampl.	0.2
	431.8	256.3	495.8	256.8	256.9	220.5	256.4	256.4	Sbd box	256.5
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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
tu	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	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.80119567827E+01		Apriori delay (usec)		-8.80094307731E+01		Resid mbdelay (usec)		-2.52601E-03	+/- 9.7E-05
Sband delay (usec)	-8.80112397731E+01		Apriori clock (usec)		-1.1920629E+00		Resid sbdelay (usec)		-1.80900E-03	+/- 7.7E-04
Phase delay (usec)	-8.80094336644E+01		Apriori clockrate (us/s)		-2.9999999E-07		Resid phdelay (usec)		-2.89130E-06	+/- 3.3E-07
Delay rate (us/s)	-7.43274259949E-03		Apriori rate (us/s)		-7.43287381090E-03		Resid rate (us/s)		1.31211E-07	+/- 1.4E-09
Total phase (deg)			Apriori accel (us/s/s)		-2.65942745568E-06		Resid phase (deg)		-89.7	+/- 10.3

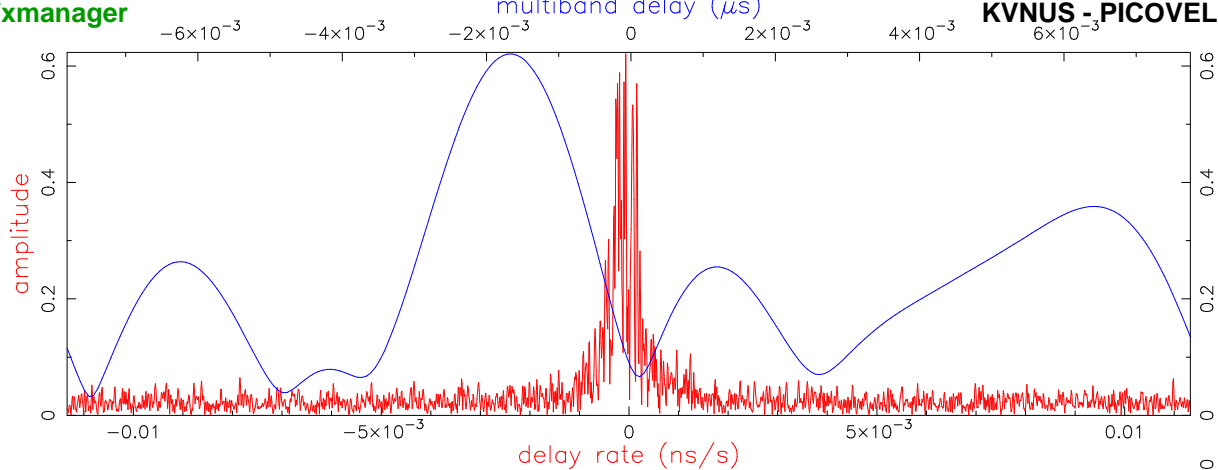
ph/seg (deg) 70.8 24.7 Search (2048X32) 0.193 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 119.7 43.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 13.2 14.6 Inc. seg. avg. 0.318 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 19.4 25.4 Inc. frq. avg. 0.192 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 321.4 el 38.0 pa 87.5 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) 75.950 -492.071 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tu..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tu.W.71.1IU DSP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

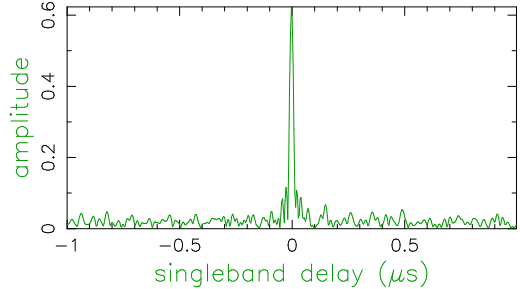
0102+584.1IUDSP, No0162, uP

KVNUS - PICOVEL, fgroup W, pol LL

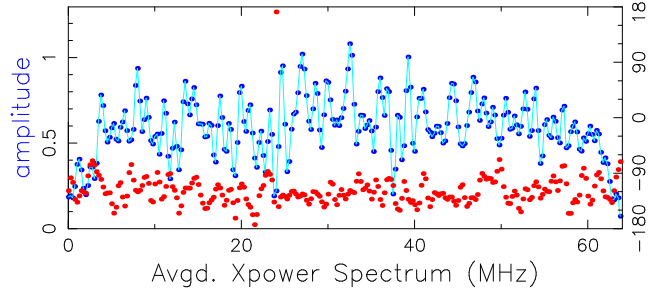


Fringe quality 4

SNR 34.9
 Int time 419.394
 Amp 0.623
 Phase -136.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.003054
 MBD -0.001650
 Fringe rate (Hz)
 -0.005700
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

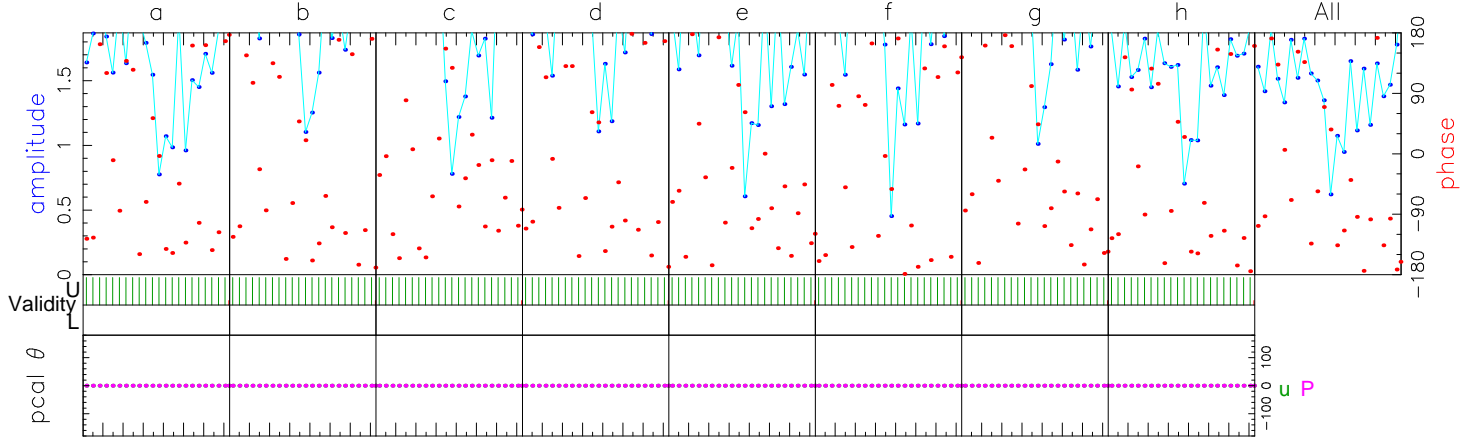


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031650
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-2.51409042153E+03	Apriori delay (usec)	-2.51408877157E+03	Resid mbdelay (usec)	-1.64996E-03	+/-	3.1E-05
Sband delay (usec)	-2.51409182507E+03	Apriori clock (usec)	2.7944894E+00	Resid sbdelay (usec)	-3.05350E-03	+/-	2.5E-04
Phase delay (usec)	-2.51408877596E+03	Apriori clockrate (us/s)	7.9999999E-07	Resid phdelay (usec)	-4.39506E-06	+/-	1.1E-07
Delay rate (us/s)	-1.18754458982E+00	Apriori rate (us/s)	-1.18754452366E+00	Resid rate (us/s)	-6.61687E-08	+/-	4.4E-10
Total phase (deg)	-58.2	Apriori accel (us/s/s)	1.13014460066E-05	Resid phase (deg)	-136.3	+/-	3.3

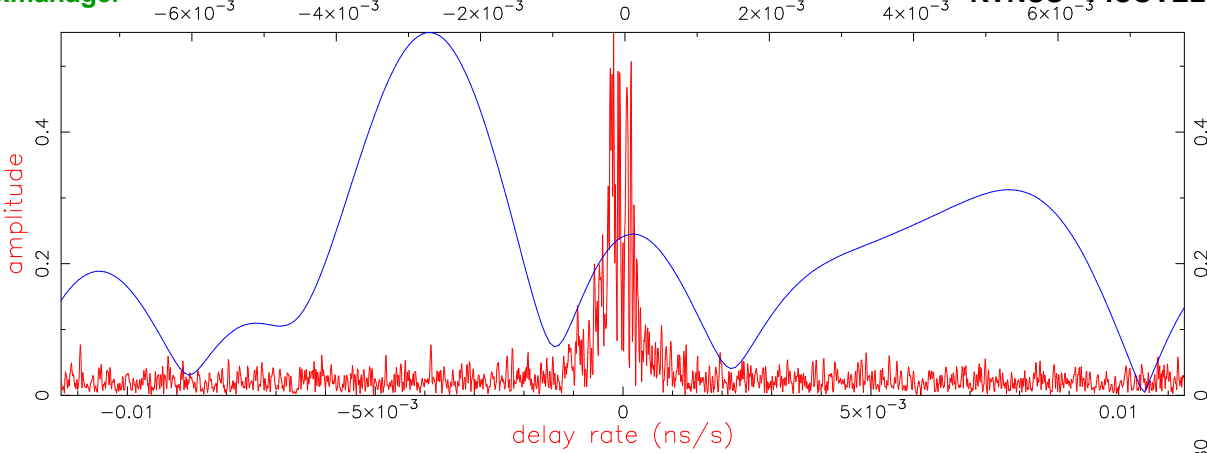
ph/seg (deg)	77.0	Theor.	7.9	Search (2048X32)	0.608	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	141.3		13.7	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	44.1		4.6	Inc. seg. avg.	1.435	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011
amp/frq (%)	27.7		8.1	Inc. frq. avg.	0.780	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00	0.00

u: az 320.5 el 38.3 pa 82.0 P: az 40.8 el 46.5 pa -93.3 u,v (fr/asec) 13044.315 1193.333 simultaneous interpolator

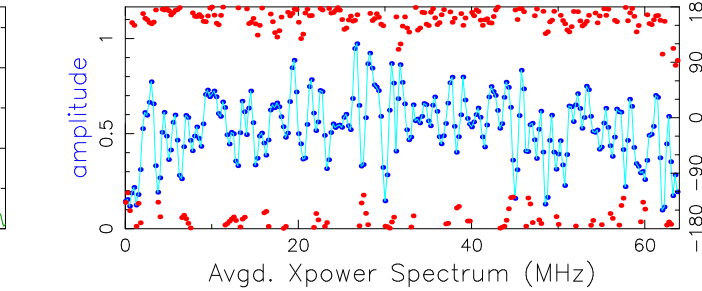
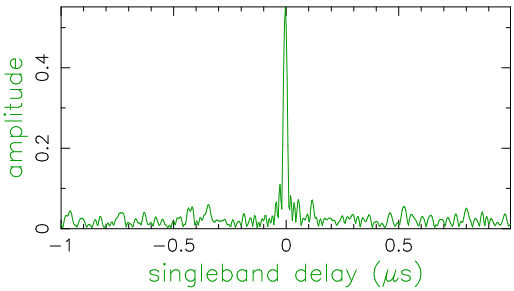
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uP..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uP.W.19.1IUDSP

multiband delay (μ s)

Fringe quality 4

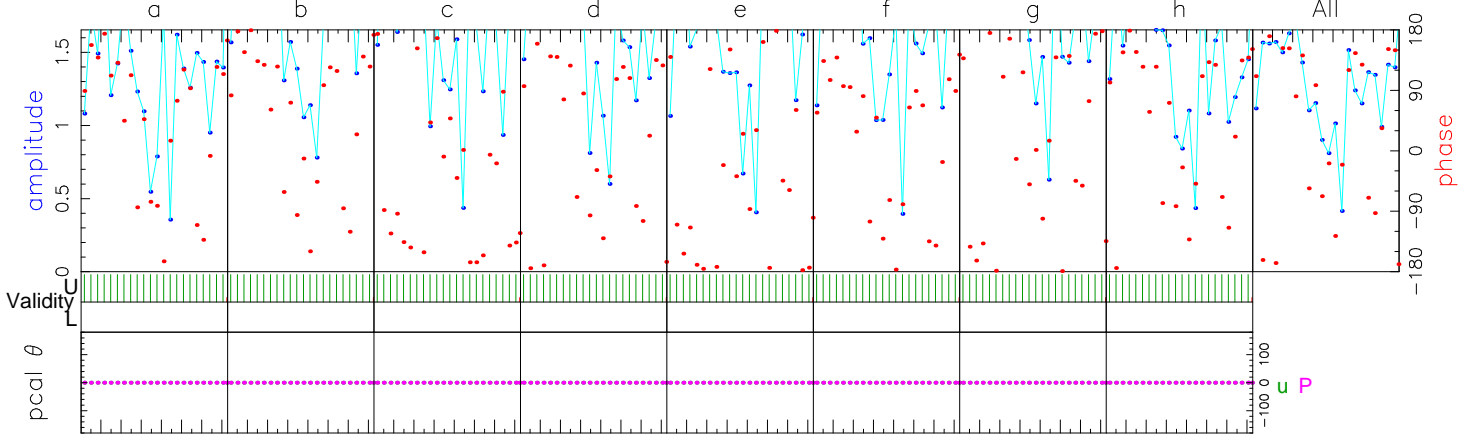


SNR 30.9
Int time 419.394
Amp 0.551
Phase 156.5
PFD 0.0e+00
Delays (us)
SBD -0.003981
MBD -0.002714
Fringe rate (Hz)
-0.016488
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031653
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

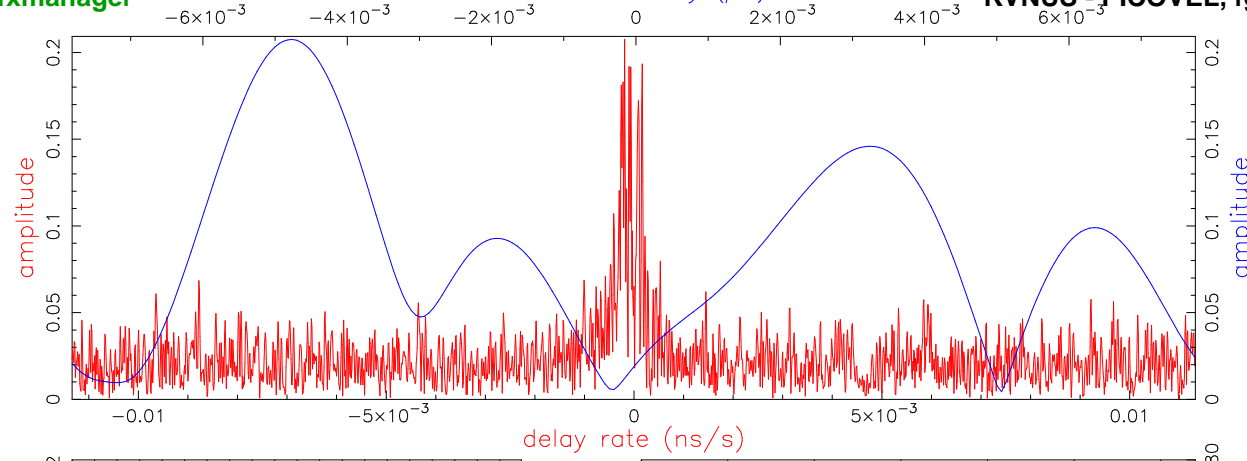
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	130.7	137.2	-133.0	139.7	-159.6	103.4	178.2	138.5	Phase	156.5
	0.6	0.8	0.7	0.7	0.7	0.7	0.7	0.6	Ampl.	0.7
	257.7	256.0	255.5	255.1	255.6	255.5	255.7	255.9	Sbd box	256.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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	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)	-2.51409148536E+03		Apriori delay (usec)		-2.51408877157E+03		Resid mbdelay (usec)		-2.71379E-03	+/- 3.5E-05
Sband delay (usec)	-2.51409275207E+03		Apriori clock (usec)		2.7944894E+00		Resid sbdelay (usec)		-3.98050E-03	+/- 2.8E-04
Phase delay (usec)	-2.51408876652E+03		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		5.04748E-06	+/- 1.2E-07
Delay rate (us/s)	-1.18754471507E+00		Apriori rate (us/s)		-1.18754452366E+00		Resid rate (us/s)		-1.91410E-07	+/- 4.9E-10
Total phase (deg)			Apriori accel (us/s/s)		1.13014460066E-05		Resid phase (deg)		156.5	+/- 3.7

ph/seg (deg) 87.8 8.9 Search (2048X32) 0.520 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 142.3 15.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 44.4 5.2 Inc. seg. avg. 1.258 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 29.1 9.2 Inc. frq. avg. 0.698 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 320.5 el 38.3 pa 82.0 P: az 40.8 el 46.5 pa -93.3 u,v (fr/asec) 13044.315 1193.333 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uP..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uP.W.33.1IUDSP

multiband delay (μ s)



Fringe quality 9

SNR 11.7

Int time 419.394

Amp 0.209

Phase -50.6

PFD 5.0e-23

Delays (us)

SBD -0.006580

MBD -0.004756

Fringe rate (Hz)

-0.016465

Ion TEC 0.000

Ref freq (MHz)

86140.0000

AP (sec) 0.512

Exp. c202b

Yr:day 16383

Start 200001.00

Stop 200700.84

FRT 200331.00

Corr/FF/build

2021:027:194527

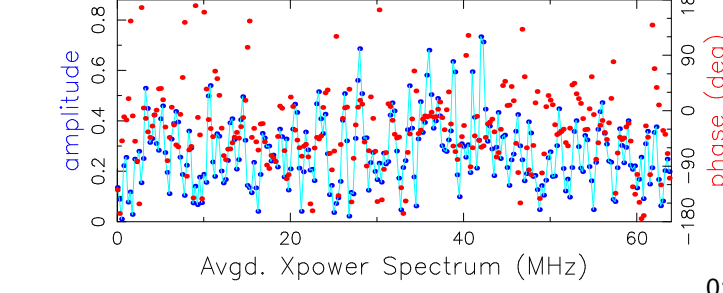
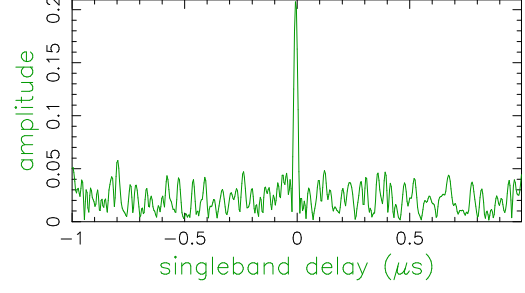
2021:029:031657

2020:247:085004

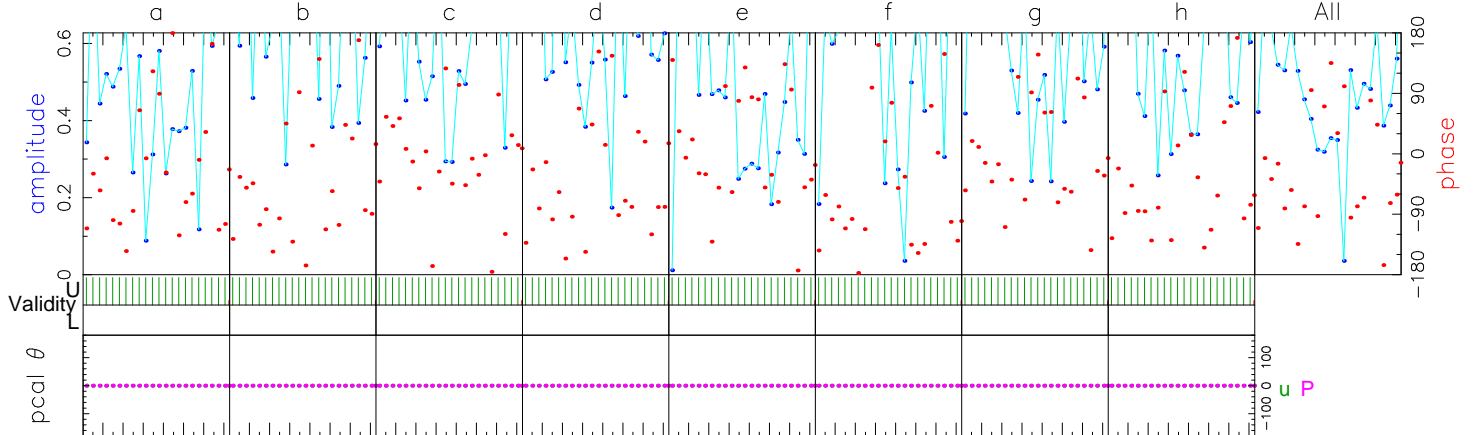
RA & Dec (J2000)

01h02m45.762375s

+58°24'11.136621"



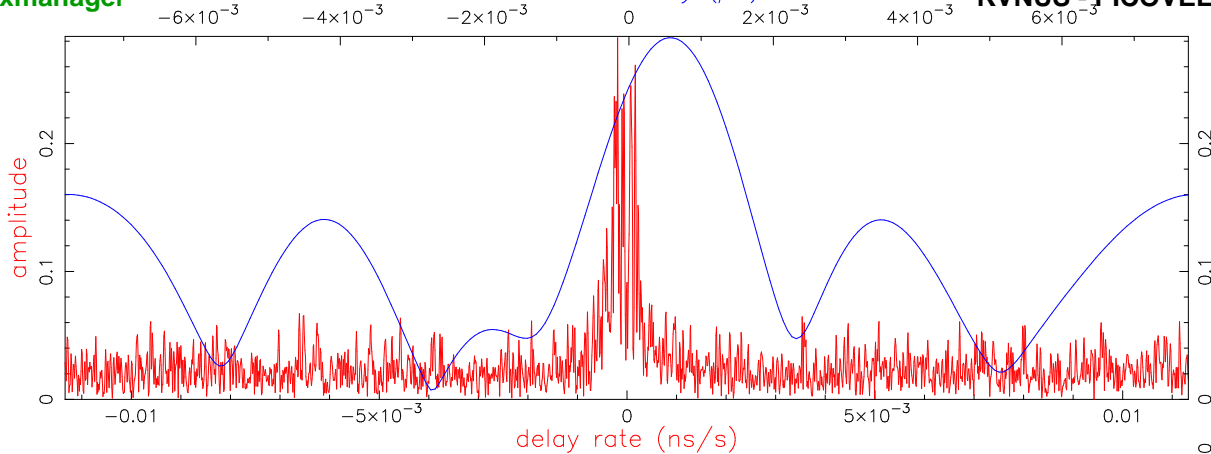
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



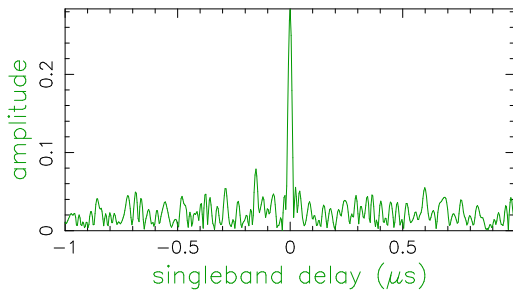
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-73.9	-83.7	7.8	-64.5	-6.4	-118.1	-16.9	-75.9	Phase	-50.6
	0.2	0.3	0.4	0.3	0.2	0.2	0.3	0.3	Ampl.	0.3
	257.0	255.6	255.1	254.3	253.9	254.6	255.2	255.2	Sbd box	255.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	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	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.51409352742E+03		Apriori delay (usec)		-2.51408877157E+03		Resid mbdelay (usec)		-4.75585E-03	+/- 9.3E-05
Sband delay (usec)	-2.51409535207E+03		Apriori clock (usec)		2.7944894E+00		Resid sbdelay (usec)		-6.58050E-03	+/- 7.4E-04
Phase delay (usec)	-2.51408877320E+03		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		-1.63296E-06	+/- 3.2E-07
Delay rate (us/s)	-1.18754471480E+00		Apriori rate (us/s)		-1.18754452366E+00		Resid rate (us/s)		-1.91143E-07	+/- 1.3E-09
Total phase (deg)			Apriori accel (us/s/s)		1.13014460066E-05		Resid phase (deg)		-50.6	+/- 9.8
	RMS	Theor.	Amplitude	0.209 +/- 0.018		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	83.9	23.4	Search (2048X32)	0.199		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000	1.000
amp/seg (%)	145.1	40.9	Interp.	0.000		SampCntNorm: enabled		mb window (us)	-0.008	0.008
ph/frq (deg)	47.5	13.8	Inc. seg. avg.	0.435		Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.5	24.1	Inc. frq. avg.	0.267		Data rate(Mb/s): 2048		nlags: 256	t_cohere infinite	ion window (TEC)
u: az 320.5 el 38.3 pa 82.0	P: az 40.8 el 46.5 pa -93.3		u, v (fr/asec) 13044.315 1193.333						simultaneous interpolator	
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uP..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uP.W.52.1IUDSP										

multiband delay (μ s)

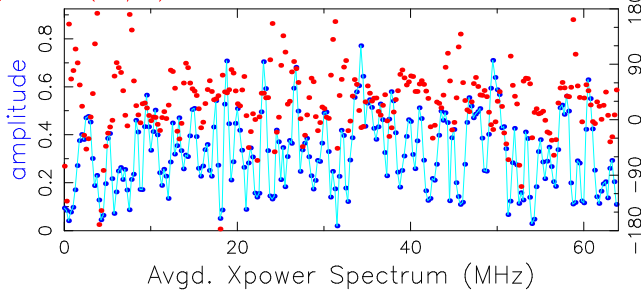
Fringe quality 8



SNR 15.9
 Int time 419.394
 Amp 0.284
 Phase 13.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.000802
 MBD 0.000549
 Fringe rate (Hz)
 -0.016515
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

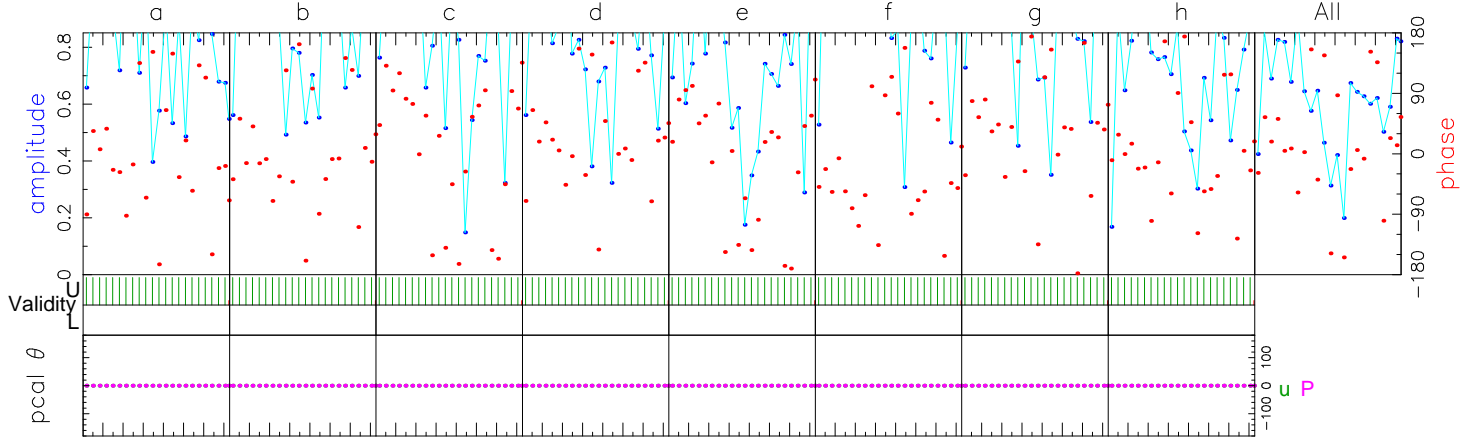


delay rate (ns/s)



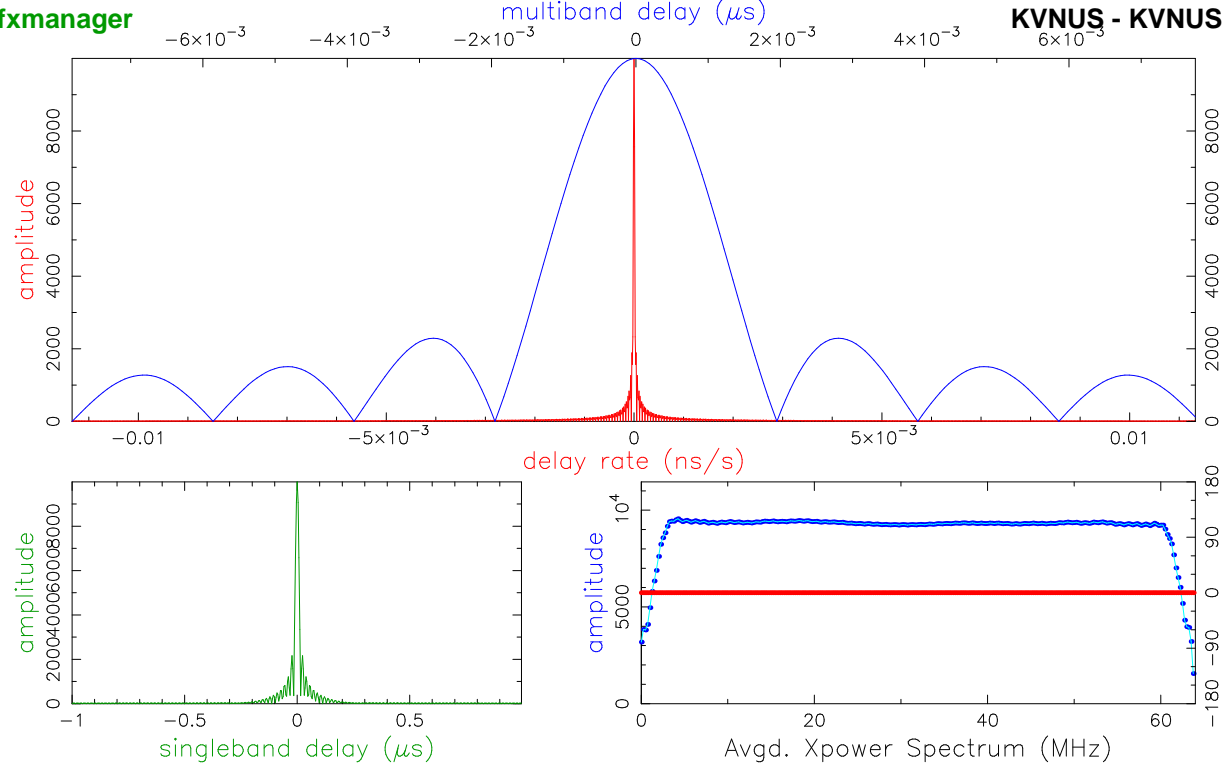
Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031701
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



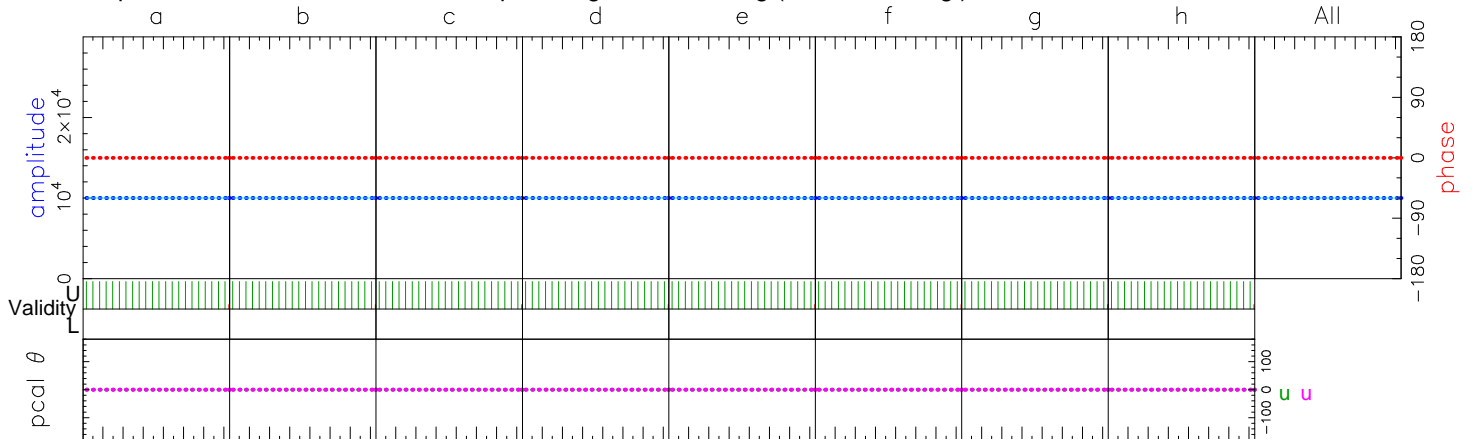
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-15.2	-5.7	88.0	17.8	46.0	-46.3	46.0	-13.8		Phase 13.9
	0.3	0.5	0.3	0.4	0.3	0.4	0.5	0.3		Ampl. 0.4
	258.7	257.2	256.0	256.2	255.4	256.2	256.7	256.3		Sbd box 256.8
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used
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	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)	-2.51408822248E+03		Apriori delay (usec)		-2.51408877157E+03		Resid mbdelay (usec)		5.49086E-04	+/- 6.8E-05
Sband delay (usec)	-2.51408957357E+03		Apriori clock (usec)		2.7944894E+00		Resid sbdelay (usec)		-8.02000E-04	+/- 5.4E-04
Phase delay (usec)	-2.51408877112E+03		Apriori clockrate (us/s)		7.9999999E-07		Resid phdelay (usec)		4.48724E-07	+/- 2.3E-07
Delay rate (us/s)	-1.18754471537E+00		Apriori rate (us/s)		-1.18754452366E+00		Resid rate (us/s)		-1.91719E-07	+/- 9.6E-10
Total phase (deg)			Apriori accel (us/s/s)		1.13014460066E-05		Resid phase (deg)		13.9	+/- 7.2

ph/seg (deg) 84.8 17.3 Search (2048X32) 0.270 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 133.0 30.2 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 46.9 10.2 Inc. seg. avg. 0.591 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 38.3 17.8 Inc. frq. avg. 0.356 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 320.5 el 38.3 pa 82.0 P: az 40.8 el 46.5 pa -93.3 u,v (fr/asec) 13044.315 1193.333 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uP..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uP.W.73.1IUDSP



Fringe quality 9
SNR 560315.6
Int time 419.827
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz) 0.000000
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512
Exp. c202b
Yr:day # 16383
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031650
2020:247:085004
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

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

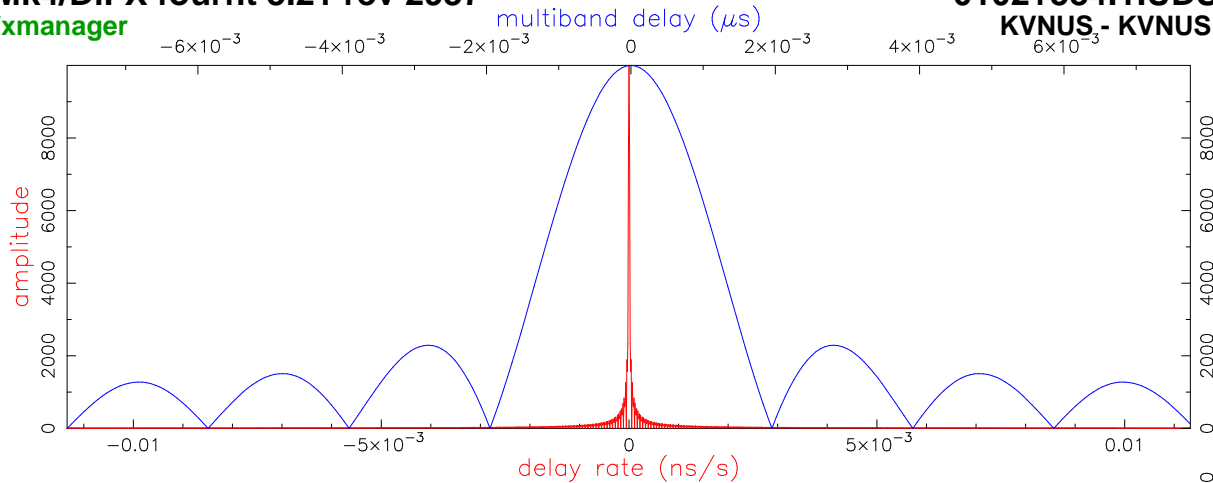


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000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

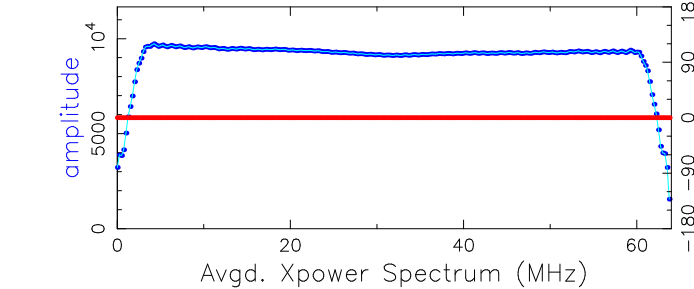
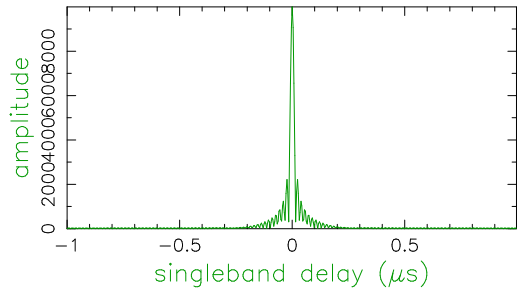
Group delay (usec)(sbd) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 1.9E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 1.5E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 6.6E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 2.7E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 9999.999 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 9999.999 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

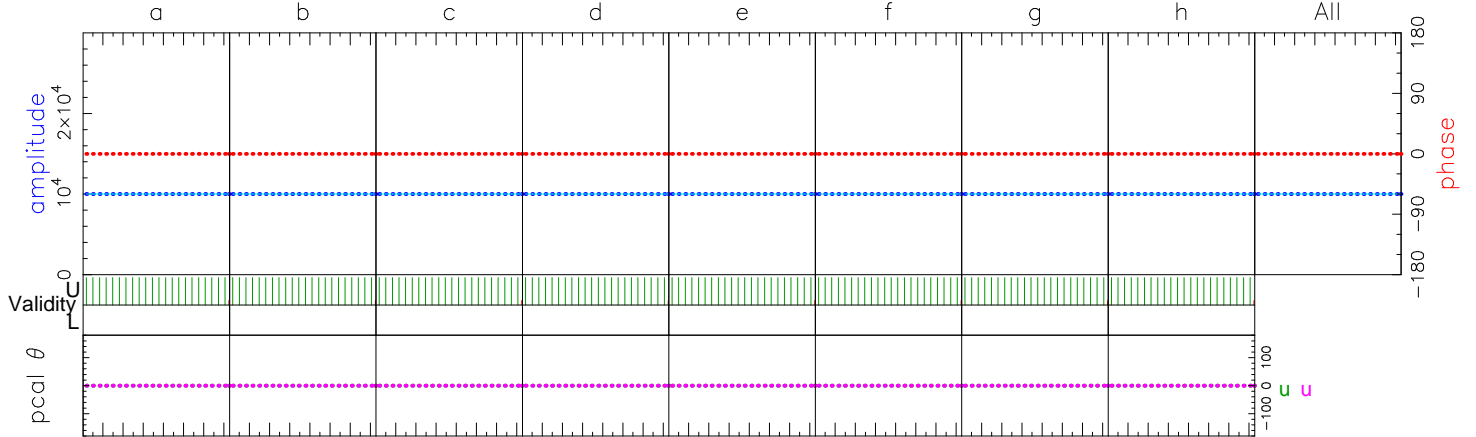
u: az 320.5 el 38.3 pa 82.0 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uu...1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uu.W.15.1IUDSP



Fringe quality 9
SNR 560315.6
Int time 419.827
Amp 9999.999
Phase 0.0
PFD 0.0e+00
Delays (us)
SBD 0.000000
MBD 0.000000
Fringe rate (Hz)
0.000000
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512
Exp. c202b
Yr:day 16383
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031654
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"



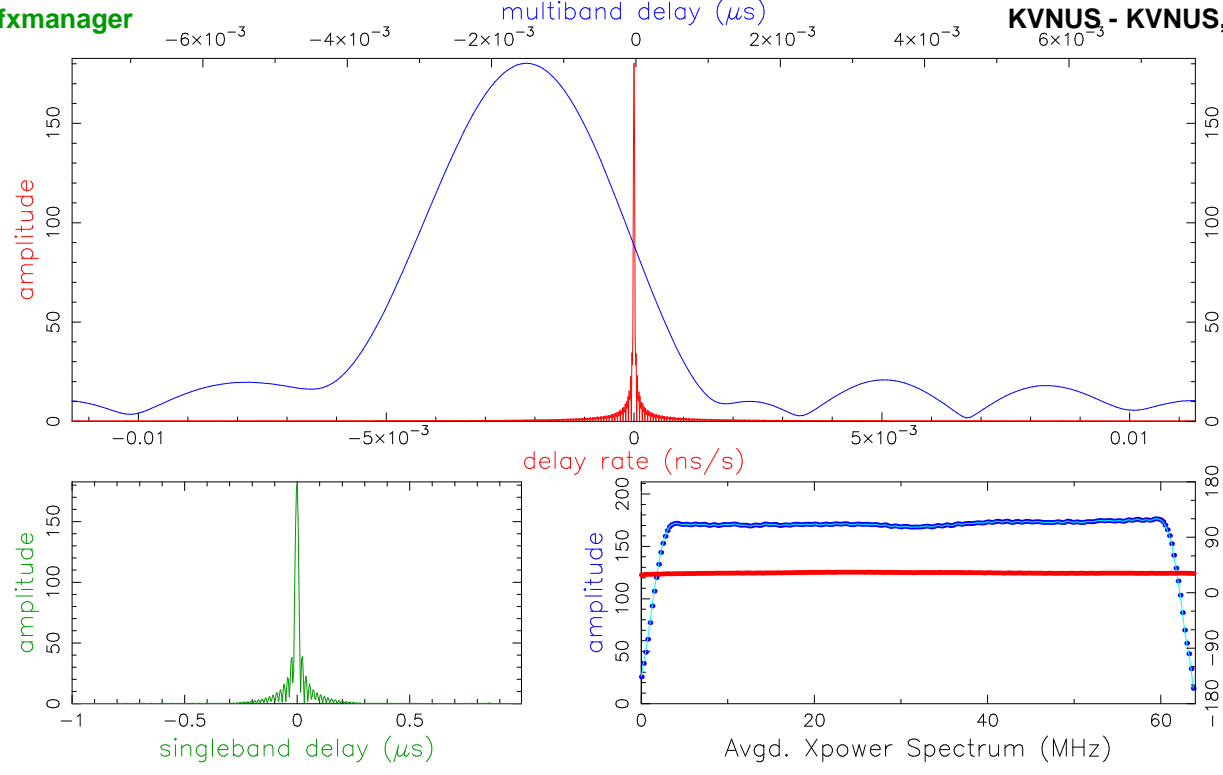
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:u	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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	1.9E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.5E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	6.6E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	2.7E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

	RMS	Theor.	Amplitude	9999.999 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	0.0	0.0	Search (2048X32)	9999.999	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	0.0	0.0	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	0.0	0.0	Inc. seg. avg.	10000.000	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	0.0	0.0	Inc. frq. avg.	9999.999	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

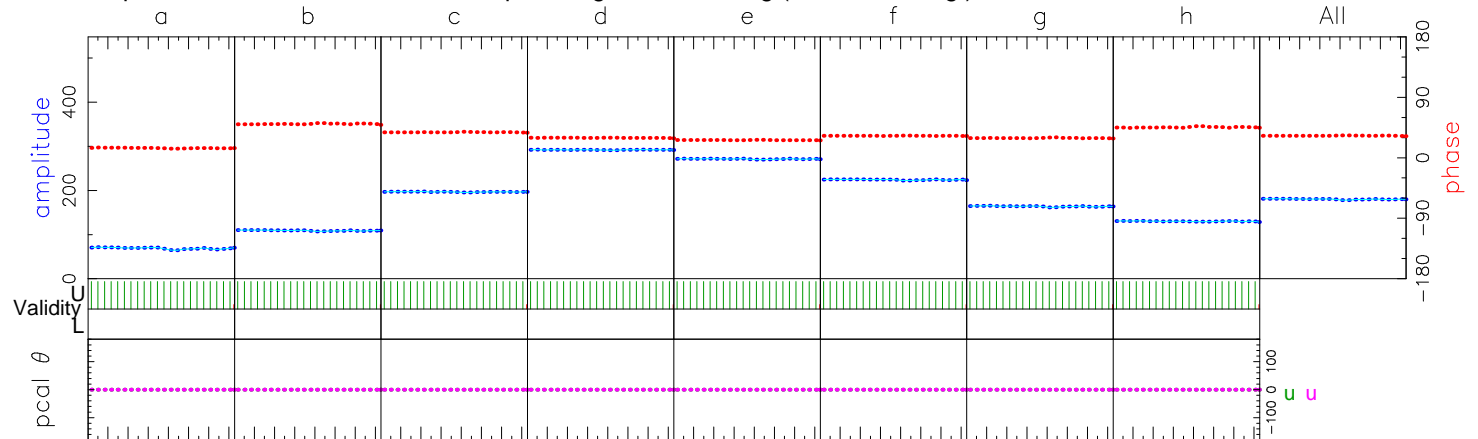


Fringe quality 6

SNR 10238.5
Int time 419.827
Amp 182.726
Phase 32.8
PFD 0.0e+00
Delays (us)
SBD -0.001477
MBD -0.001533
Fringe rate (Hz)
0.000004
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. c202b
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031658
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

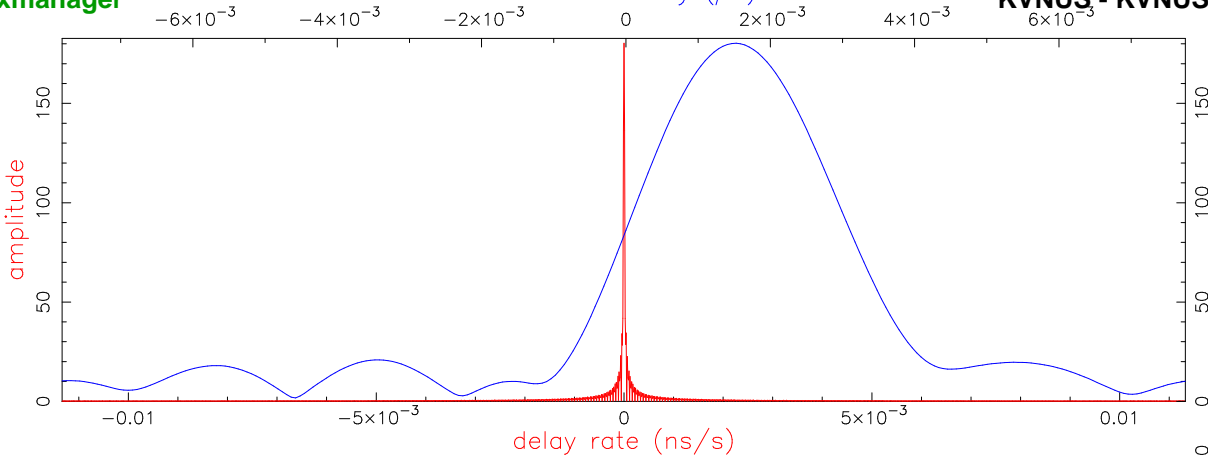
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



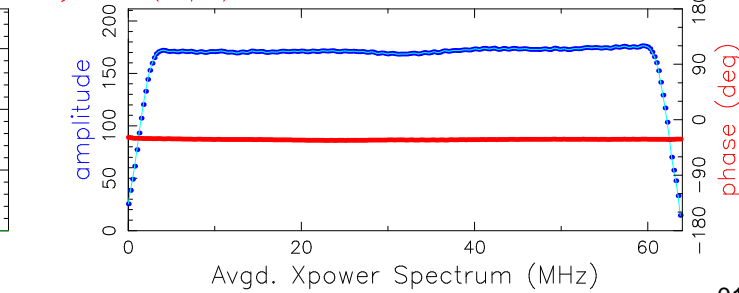
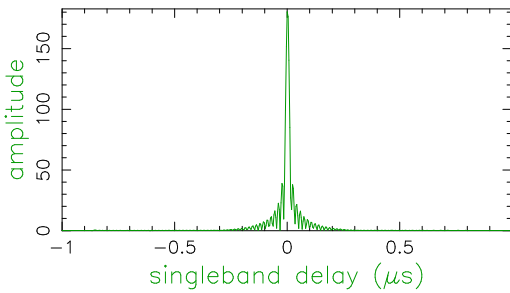
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
u	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u	1000	1000	1000	1000	1000	1000	1000	1000	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
Group delay (usec)(sbd)	-1.53318750000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-1.53319E-03	+/- 1.1E-07
Sband delay (usec)	-1.47725000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		-1.47725E-03	+/- 8.4E-07
Phase delay (usec)	1.05884715352E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		1.05885E-06	+/- 3.6E-10
Delay rate (us/s)	4.81819181317E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		4.81819E-11	+/- 1.5E-12
Total phase (deg)	32.8		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		32.8	+/- 0.0
ph/seg (deg)	RMS 0.2	Theor. 0.0	Amplitude 182.727 +/- 0.018	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5				
amp/seg (%)	1.4	0.0	Search (2048X32) 180.142	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us) -1.000 1.000				
ph/frq (deg)	12.2	0.0	Interp. 0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us) -0.008 0.008		
amp/frq (%)	40.2	0.0	Inc. seg. avg. 180.265	Sample rate(MISamp/s): 128		dr window (ns/s) -0.011 0.011				
u: az 320.5 el 38.3 pa 82.0	u: az 320.5 el 38.3 pa 82.0		u,v (fr/asec) 0.000 0.000		Data rate(Mb/s): 2048		nlags: 256 t_cohere infinite		ion window (TEC) 0.00 0.00	
Control file: cf_1234_gmva	Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uu..1IUDSP		Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uu.W.57.1IUDSP		simultaneous interpolator					

multiband delay (μ s)

Fringe quality 6

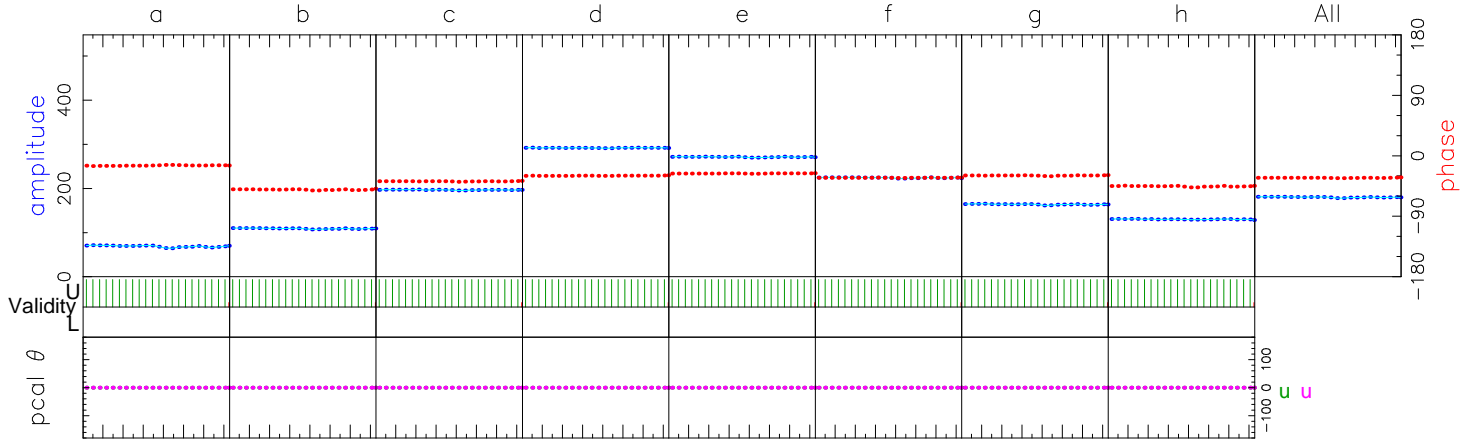


SNR 10238.5
Int time 419.827
Amp 182.726
Phase -32.8
PFD 0.0e+00
Delays (us)
SBD 0.001477
MBD 0.001533
Fringe rate (Hz)
-0.000004
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031701
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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

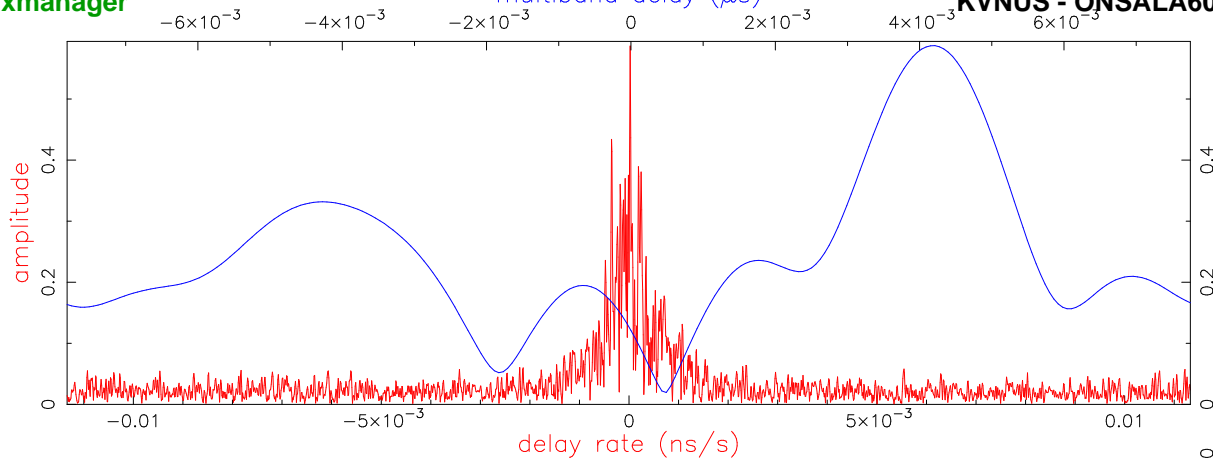


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-14.5	-50.4	-38.0	-29.7	-26.3	-32.7	-29.4	-45.4	Phase	-32.8
	69.0	109.3	196.8	292.0	271.3	224.4	164.1	130.3	Ampl.	182.1
	256.8	257.4	257.6	257.5	257.4	257.4	257.4	257.3	Sbd box	257.4
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:u	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	
u	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	1.53318750000E-03		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		1.53319E-03	+/- 1.1E-07
Sband delay (usec)	1.47725000000E-03		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		1.47725E-03	+/- 8.4E-07
Phase delay (usec)	-1.05884715346E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		-1.05885E-06	+/- 3.6E-10
Delay rate (us/s)	-4.81819181317E-11		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-4.81819E-11	+/- 1.5E-12
Total phase (deg)			Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		-32.8	+/- 0.0

RMS Theor. Amplitude 182.727 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.2 0.0 Search (2048X32) 180.142 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 1.4 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 12.2 0.0 Inc. seg. avg. 180.265 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 40.2 0.0 Inc. frq. avg. 182.140 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 u: az 320.5 el 38.3 pa 82.0 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator

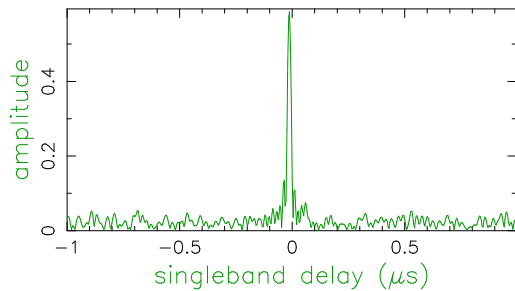
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uu..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uu.W.76.1IUDSP

multiband delay (μs)

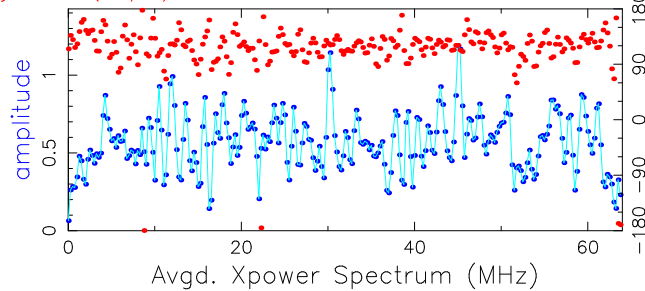


Fringe quality 4

SNR 33.3
Int time 419.770
Amp 0.594
Phase -77.9
PFD 0.0e+00
Delays (us)
SBD -0.013148
MBD 0.004134
Fringe rate (Hz)
0.001844
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

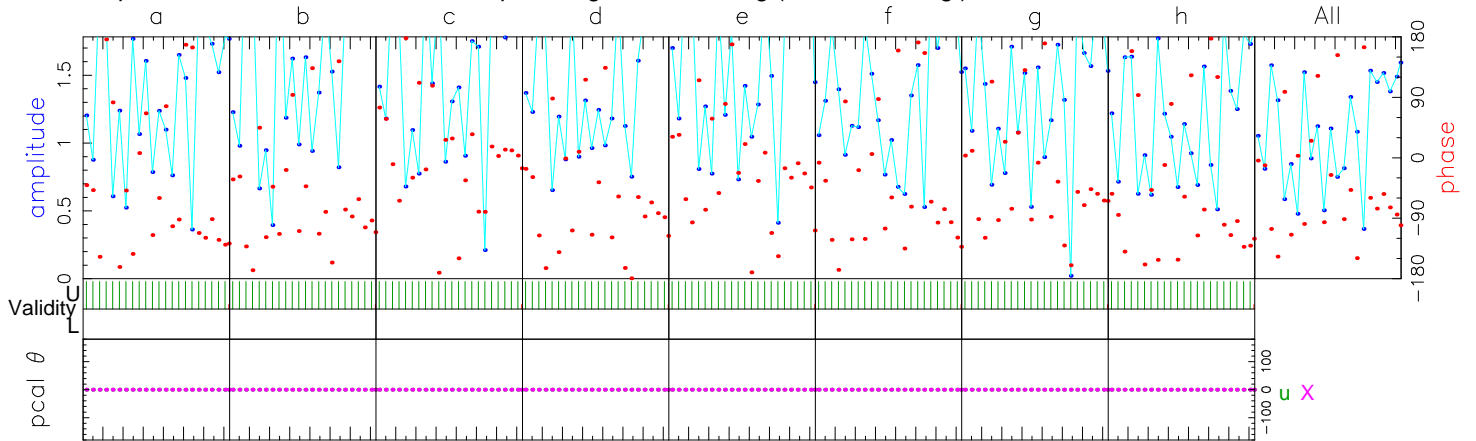


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031650
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	-121.6	-98.0	4.0	-90.6	-29.9	-95.5	-58.7	-122.9	Phase	-77.9
	0.7	1.0	0.8	0.8	0.8	0.7	0.8	0.6	Ampl.	0.8
	255.5	253.6	253.2	252.9	253.3	253.0	253.2	253.3	Sbd box	253.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

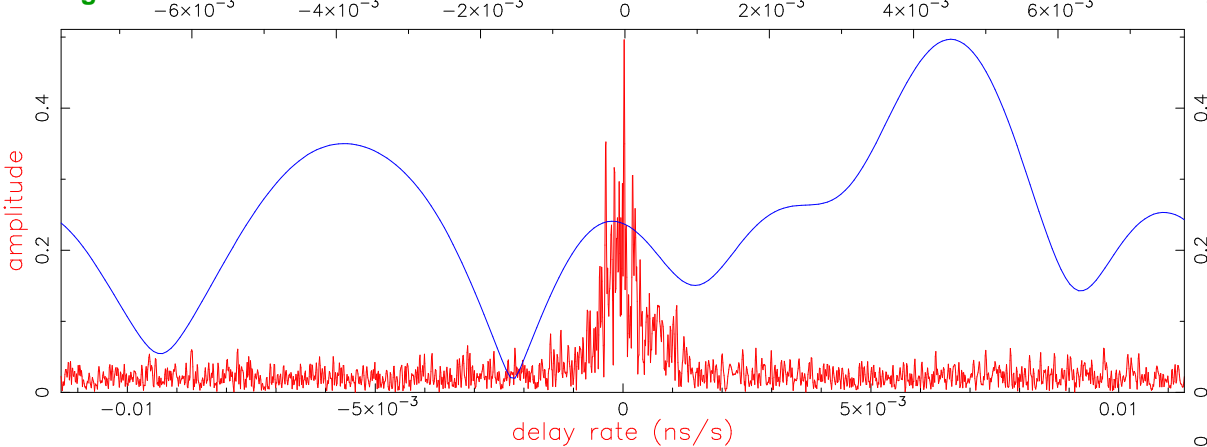
Group delay (usec)(sbd)	-6.64487183318E+03	Apriori delay (usec)	-6.64486034260E+03	Resid mbdelay (usec)	4.13443E-03	+/-	3.3E-05
Sband delay (usec)	-6.64487349060E+03	Apriori clock (usec)	-4.5786858E+01	Resid sbdelay (usec)	-1.31480E-02	+/-	2.6E-04
Phase delay (usec)	-6.64486034511E+03	Apriori clockrate (us/s)	-1.2800004E-07	Resid phdelay (usec)	-2.51174E-06	+/-	1.1E-07
Delay rate (us/s)	-9.34778448496E-01	Apriori rate (us/s)	-9.34778469908E-01	Resid rate (us/s)	2.14119E-08	+/-	4.6E-10
Total phase (deg)	-46.1	Apriori accel (us/s/s)	9.94446105591E-06	Resid phase (deg)	-77.9	+/-	3.4

ph/seg (deg)	RMS 77.1	Theor. 8.3	Amplitude Search (2048X32)	0.594 +/- 0.018	0.575	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000	
amp/seg (%)	77.1	8.3	Search (2048X32)	0.594 +/- 0.018	0.575	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	102.8	14.4	Interp.	0.000	0.000	Bits/sample: 2x2	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	48.7	4.9	Inc. seg. avg.	1.063	1.063	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
	33.8	8.5	Inc. frq. avg.	0.769	0.769						

u: az 320.5 el 38.3 pa 82.0 X: az 68.4 el 66.9 pa -73.9 u,v (fr/asec) 10271.432 -56.815 simultaneous interpolator

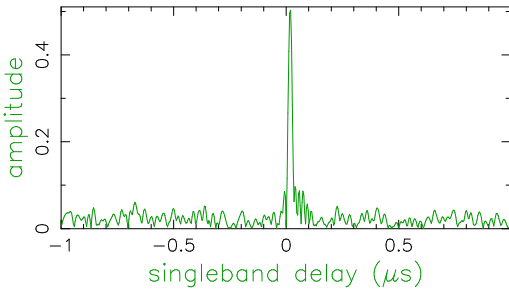
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uX..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uX.W.16.1IUDSP

multiband delay (μ s)

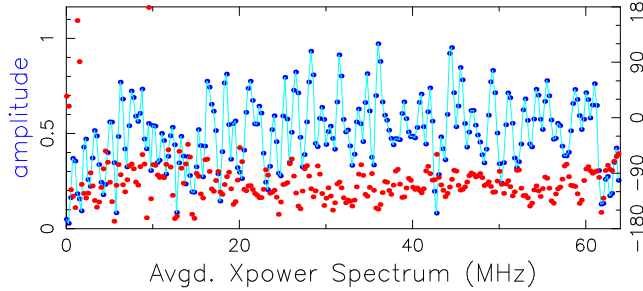


Fringe quality 3

SNR 28.6
 Int time 419.770
 Amp 0.511
 Phase 45.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.017882
 MBD 0.004576
 Fringe rate (Hz)
 0.001794
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

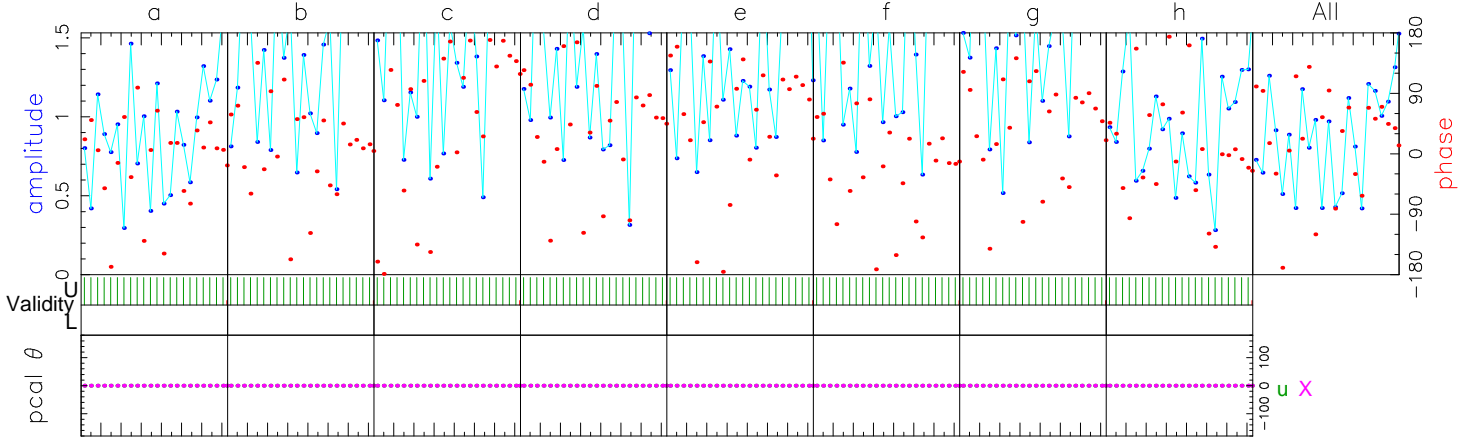


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031653
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

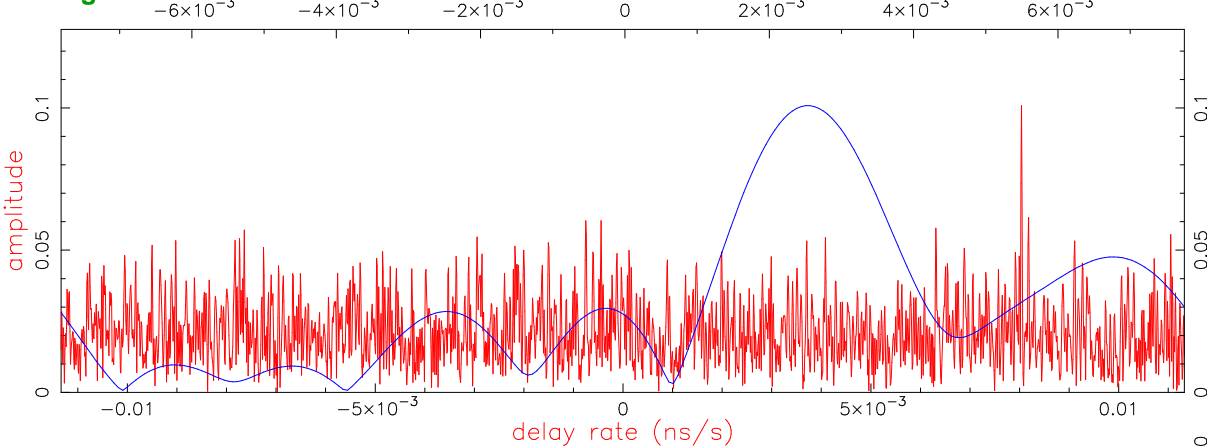
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	4.2	13.3	134.9	58.6	88.9	-8.9	61.4	-9.3	Phase	45.9
	0.6	0.8	0.9	0.8	0.8	0.8	0.8	0.5	Ampl.	0.7
	262.8	262.0	261.5	260.7	260.6	261.5	261.2	261.9	Sbd box	261.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-6.64484014111E+03		Apriori delay (usec)		-6.64486034260E+03		Resid mbdelay (usec)		4.57649E-03	+/- 3.8E-05
Sband delay (usec)	-6.64484246035E+03		Apriori clock (usec)		-4.5786858E+01		Resid sbdelay (usec)		1.78823E-02	+/- 3.0E-04
Phase delay (usec)	-6.64486034112E+03		Apriori clockrate (us/s)		-1.2800004E-07		Resid phdelay (usec)		1.47866E-06	+/- 1.3E-07
Delay rate (us/s)	-9.34778449081E-01		Apriori rate (us/s)		-9.34778469908E-01		Resid rate (us/s)		2.08266E-08	+/- 5.3E-10
Total phase (deg)			-282.4		Apriori accel (us/s/s)		9.94446105591E-06		45.9	+/- 4.0

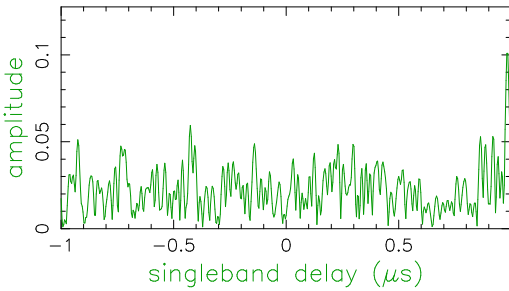
ph/seg (deg) 71.2 9.6 Search (2048X32) 0.491 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 90.2 16.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 56.3 5.7 Inc. seg. avg. 0.848 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 51.7 9.9 Inc. frq. avg. 0.734 Data rate (Mbit/s): 2048 nlags: 256 t_cohere infinite dr window (ns/s) -0.011 0.011
 u: az 320.5 el 38.3 pa 82.0 X: az 68.4 el 66.9 pa -73.9 u,v (fr/asec) 10271.432 -56.815 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uX..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uX.W.31.1IUDSP

multiband delay (μ s)

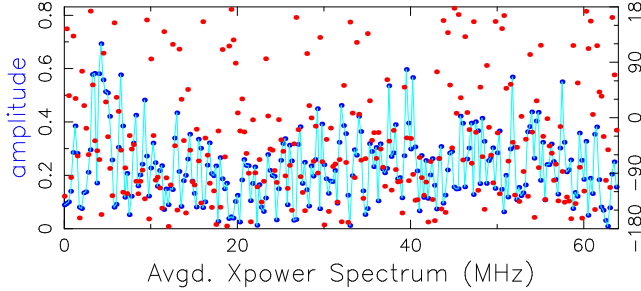


Fringe quality 0

SNR 5.8
 Int time 419.770
 Amp 0.128
 Phase 51.1
 PFD 8.8e-01
 Delays (us)
 SBD 0.982405
 MBD 0.002522
 Fringe rate (Hz)
 0.692924
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

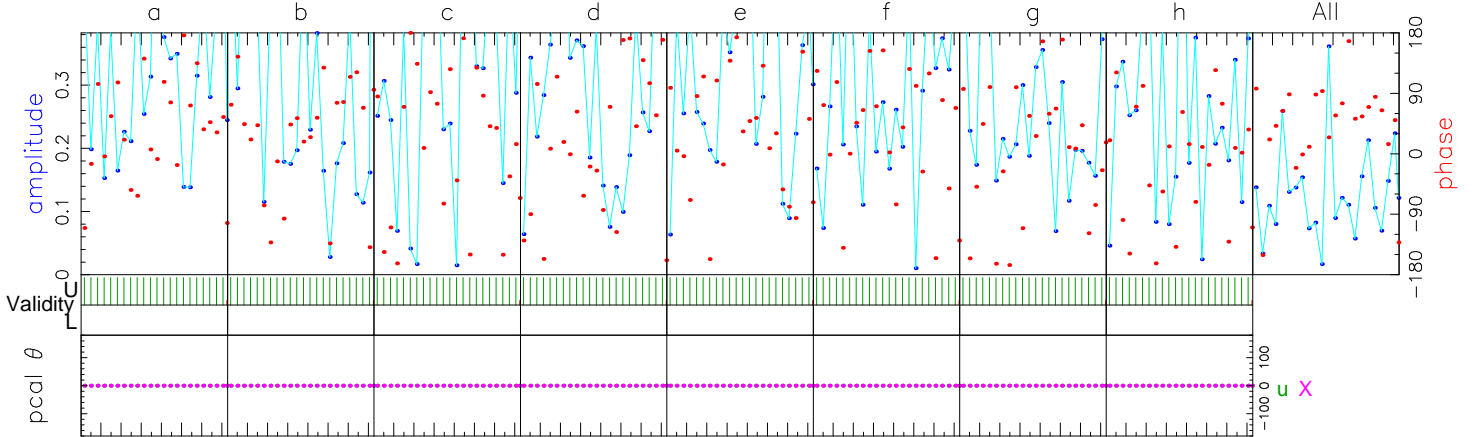


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031657
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	36.4	52.6	86.3	44.7	41.2	80.4	65.1	13.1	Phase	51.1
	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	Ampl.	0.1
	508.0	362.2	85.0	220.1	507.9	20.6	283.0	300.1	Sbd box	508.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-6.64387344598E+03	Apriori delay (usec)	-6.64486034260E+03	Resid mbdelay (usec)	2.52162E-03	+/-	1.9E-04
Sband delay (usec)	-6.64387793760E+03	Apriori clock (usec)	-4.5786858E+01	Resid sbdelay (usec)	9.82405E-01	+/-	1.5E-03
Phase delay (usec)	-6.64486034095E+03	Apriori clockrate (us/s)	-1.2800004E-07	Resid phdelay (usec)	1.64881E-06	+/-	6.4E-07
Delay rate (us/s)	-9.34770425744E-01	Apriori rate (us/s)	-9.34778469908E-01	Resid rate (us/s)	8.04416E-06	+/-	2.6E-09
Total phase (deg)	-277.1	Apriori accel (us/s/s)	9.94446105591E-06	Resid phase (deg)	51.1	+/-	19.9

ph/seg (deg)	54.3	Theor.	47.7	Amplitude	0.128 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	79.2		83.3	Search (2048X32)	0.095	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000
ph/frq (deg)	26.1		28.1	Interp.	0.000	Bits/sample: 2x2	mb window (us)	-0.008 0.008
amp/frq (%)	38.1		49.1	Inc. seg. avg.	0.120	Sample rate(MISamp/s): 128	dr window (ns/s)	-0.011 0.011
				Inc. frq. avg.	0.119	Data rate(Mb/s): 2048	ion window (TEC)	0.00 0.00

u: az 320.5 el 38.3 pa 82.0 X: az 68.4 el 66.9 pa -73.9 u,v (fr/asec) 10271.432 -56.815 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uX..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uX.W.51.1IUDSP

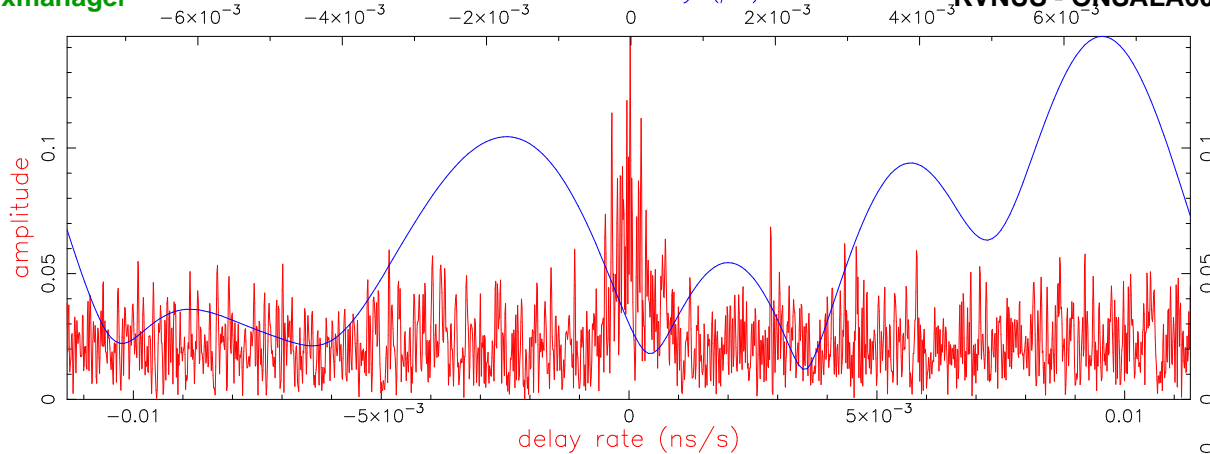
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, uX

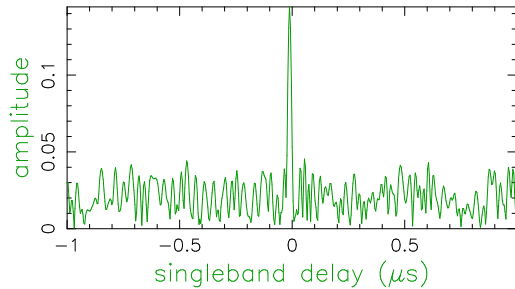
KVNUS - ONSALA60, fgroup W, pol RL

multiband delay (μ s)

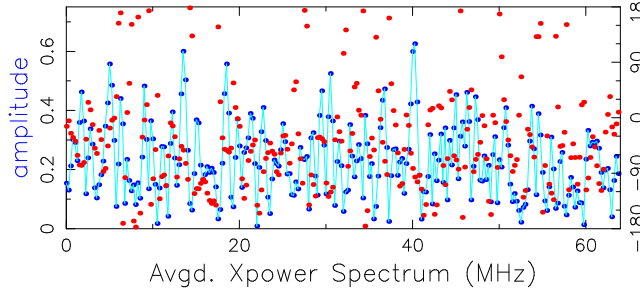


Fringe quality 9

SNR 8.1
 Int time 419.770
 Amp 0.144
 Phase 89.3
 PFD 2.0e-07
 Delays (us)
 SBD -0.011753
 MBD 0.006525
 Fringe rate (Hz)
 0.001779
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

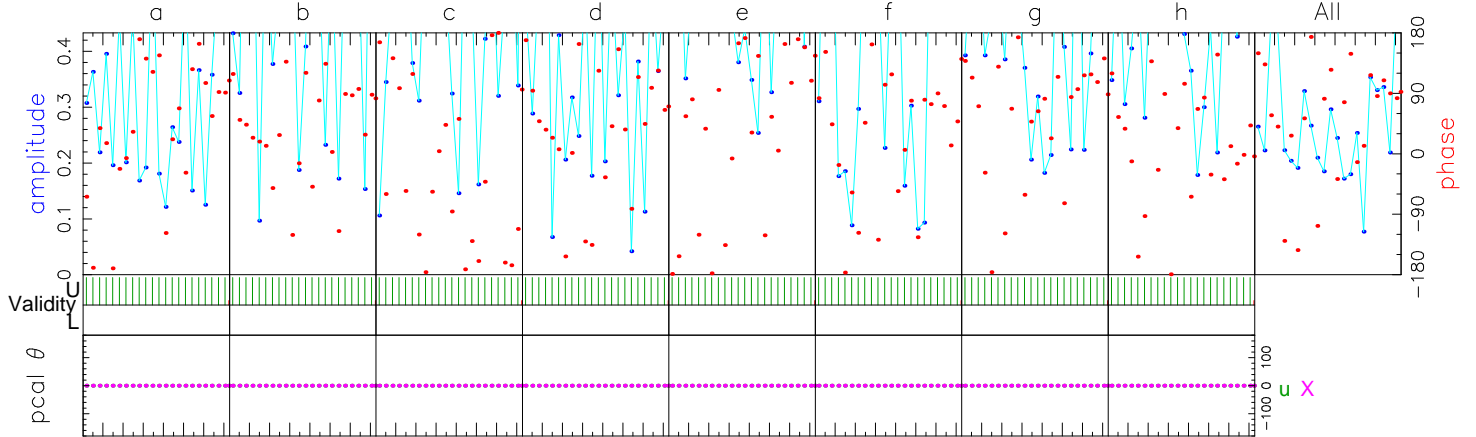


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031701
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	74.4	58.7	-163.1	79.0	149.3	73.8	107.2	28.6	Phase	89.3
	0.1	0.3	0.1	0.2	0.2	0.2	0.3	0.2	Ampl.	0.2
	255.8	253.9	347.8	252.5	253.9	253.5	253.4	252.5	Sbd box	254.0
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-6.64486944299E+03	Apriori delay (usec)	-6.64486034260E+03	Resid mbdelay (usec)	6.52461E-03	+/-	1.3E-04
Sband delay (usec)	-6.64487209585E+03	Apriori clock (usec)	-4.5786858E+01	Resid sbdelay (usec)	-1.17532E-02	+/-	1.1E-03
Phase delay (usec)	-6.64486033972E+03	Apriori clockrate (us/s)	-1.2800004E-07	Resid phdelay (usec)	2.88002E-06	+/-	4.6E-07
Delay rate (us/s)	-9.34778449250E-01	Apriori rate (us/s)	-9.34778469908E-01	Resid rate (us/s)	2.06580E-08	+/-	1.9E-09
Total phase (deg)	-238.9	Apriori accel (us/s/s)	9.94446105591E-06	Resid phase (deg)	89.3	+/-	14.2

ph/seg (deg)	74.4	Theor.	34.0	Amplitude	0.144 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	120.2	Search (2048X32)	0.141	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	58.7	Inc. seg. avg.	0.235	Inc. frq. avg.	0.188	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	52.5	Inc. frq. avg.	0.188	Sample rate (MSamp/s): 128		Data rate (Mb/s): 2048	nlags: 256
				u, v (fr/asec)	10271.432 -56.815		t_cohere infinite

u: az 320.5 el 38.3 pa 82.0 X: az 68.4 el 66.9 pa -73.9 u, v (fr/asec) 10271.432 -56.815 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uX..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uX.W.72.1IUDSP

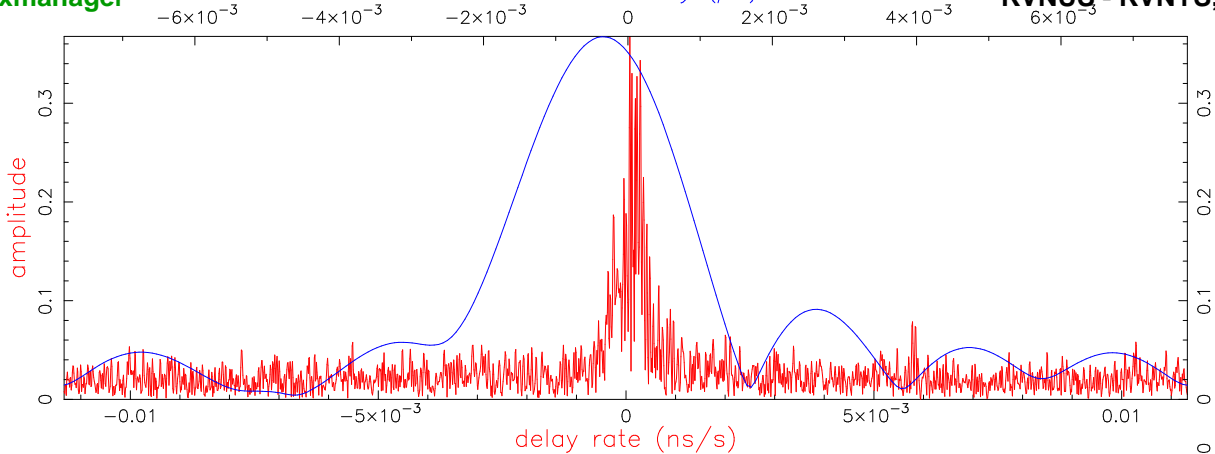
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, uy

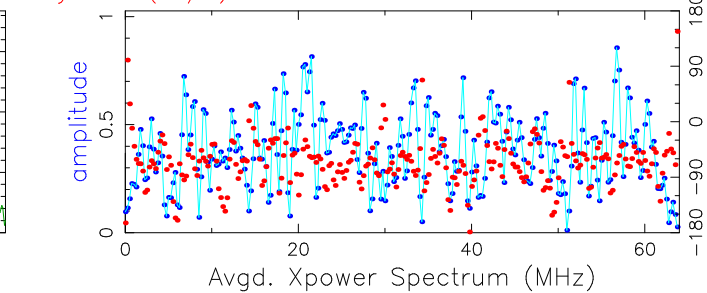
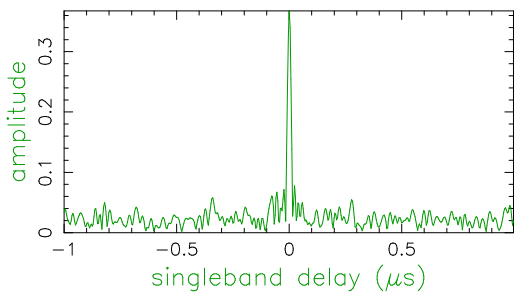
KVNU_S - KVNY_S, fgroup W, pol LR

multiband delay (μ s)



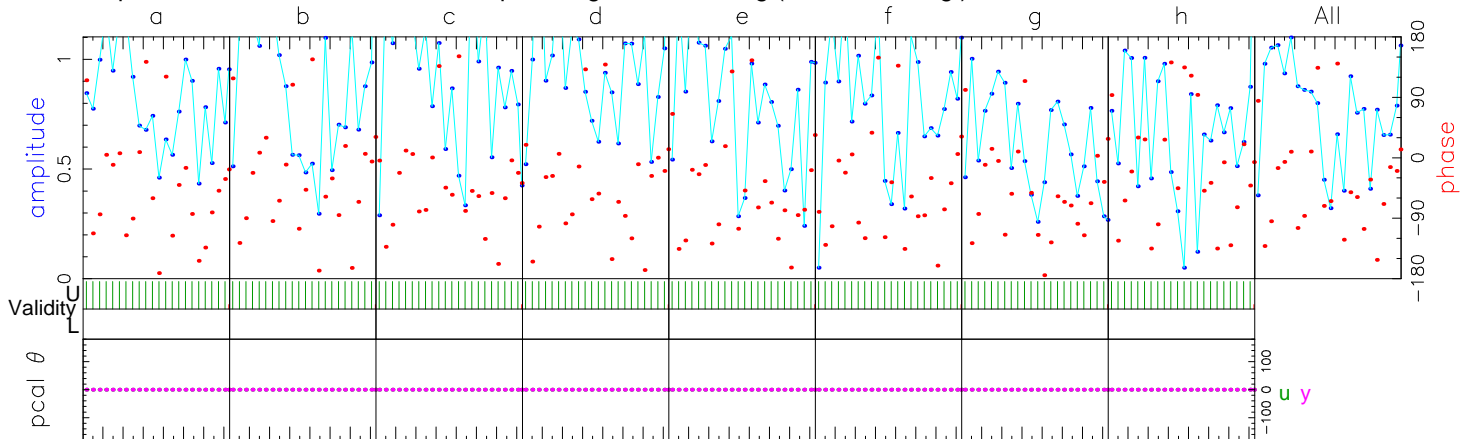
Fringe quality 9

SNR 20.6
 Int time 419.826
 Amp 0.368
 Phase -58.5
 PFD 0.0e+00
 Delays (us)
 SBD 0.000354
 MBD -0.000345
 Fringe rate (Hz) 0.006364
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031710
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-61.1	-45.9	-57.5	-64.1	-65.5	-68.3	-62.4	-35.8	Phase	-58.5
	0.4	0.4	0.5	0.4	0.3	0.4	0.3	0.2	Ampl.	0.4
	257.5	257.0	257.0	256.9	256.6	257.2	257.0	257.6	Sbd box	257.1
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.8606627867E+02		Apriori delay (usec)		-7.86066283028E+02		Resid mbdelay (usec)		-3.44839E-04	+/- 5.3E-05
Sband delay (usec)	-7.86065929278E+02		Apriori clock (usec)		1.3280635E+00		Resid sbdelay (usec)		3.53750E-04	+/- 4.2E-04
Phase delay (usec)	-7.86066284914E+02		Apriori clockrate (us/s)		2.9999999E-07		Resid phdelay (usec)		-1.88582E-06	+/- 1.8E-07
Delay rate (us/s)	-2.39480188376E-02		Apriori rate (us/s)		-2.39480927146E-02		Resid rate (us/s)		7.38771E-08	+/- 7.4E-10
Total phase (deg)			Apriori accel (us/s/s)		1.46439640794E-06		Resid phase (deg)		-58.5	+/- 5.6

ph/seg (deg) 73.0 13.3 Search (2048X32) 0.353 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 121.6 23.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 12.1 7.9 Inc. seg. avg. 0.732 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 21.6 13.7 Inc. frq. avg. 0.369 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 320.5 el 38.3 pa 82.0 y: az 319.2 el 41.0 pa 82.1 u,v (fr/asec) 265.863 53.684 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uy..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uy.W.113.1IUDSP

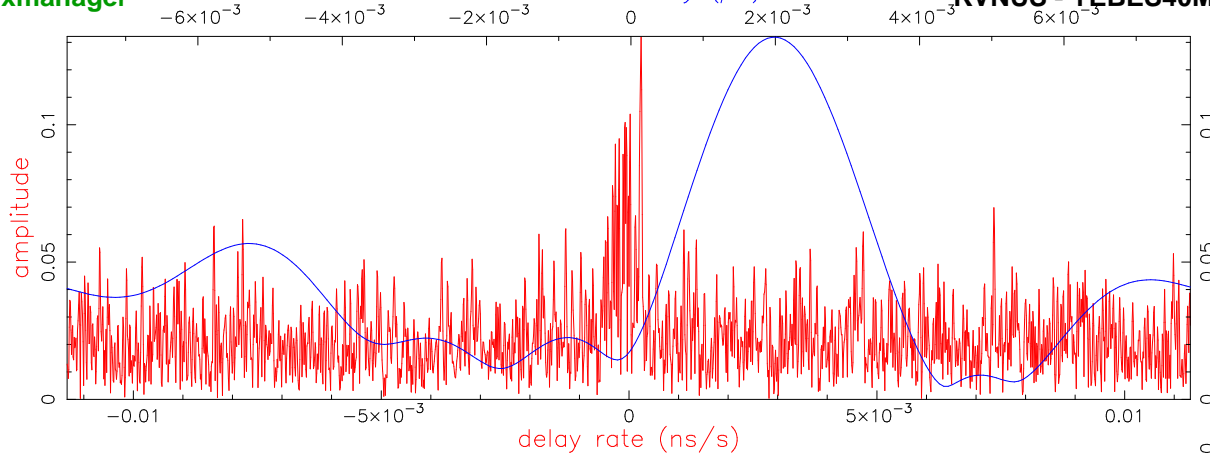
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, uY

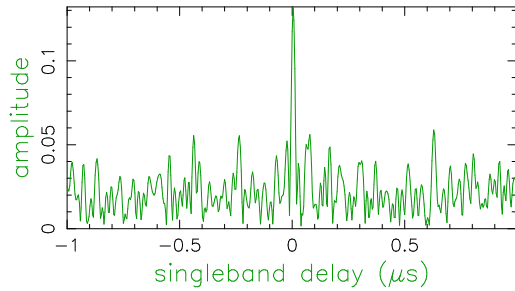
KVNUS - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

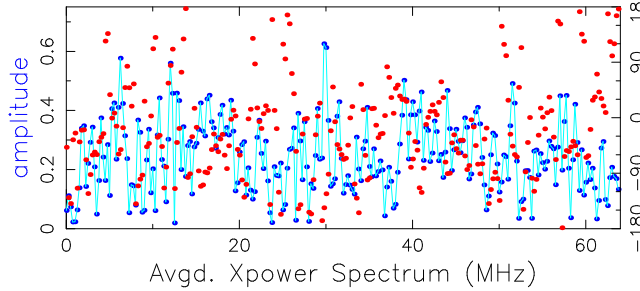


Fringe quality 0

SNR 7.2
 Int time 401.603
 Amp 0.132
 Phase -11.7
 PFD 1.4e-04
 Delays (us)
 SBD 0.004486
 MBD 0.002002
 Fringe rate (Hz)
 0.020963
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

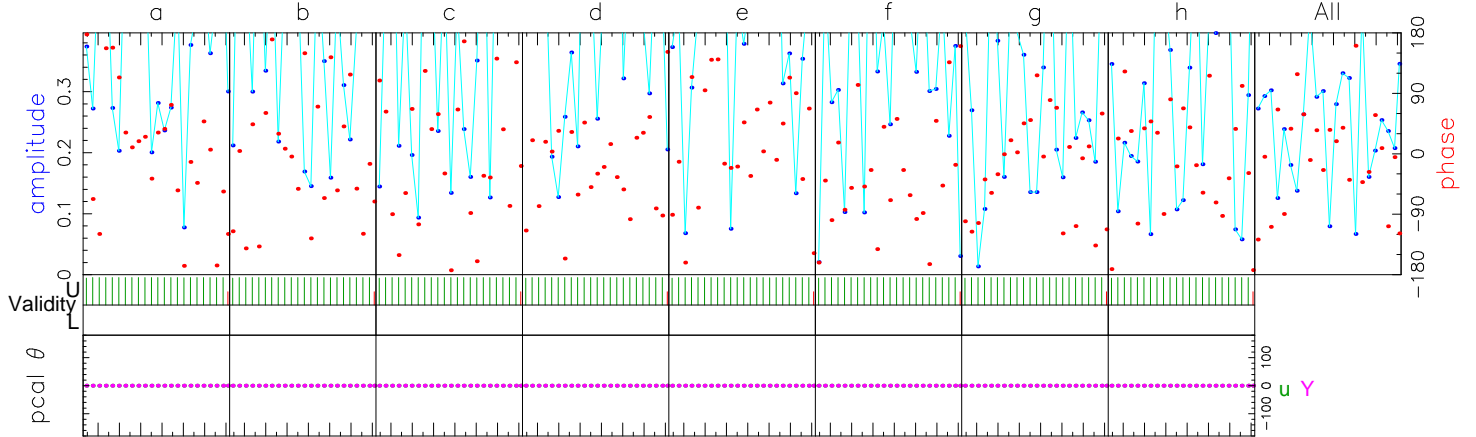


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200017.90
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031710
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-0.2	-35.2	25.2	-26.5	31.3	-34.6	-7.0	-14.1		-11.7
	0.1	0.1	0.1	0.3	0.2	0.2	0.1	0.1	Ampl.	0.1
	56.4	96.4	196.2	258.1	266.0	257.1	80.6	299.9	Sbd box	258.1
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -3.19491909677E+03 Apriori delay (usec) -3.19492109881E+03 Resid mbdelay (usec) 2.00203E-03 +/- 1.5E-04
 Sband delay (usec) -3.19491661281E+03 Apriori clock (usec) -1.1120317E+01 Resid sbdelay (usec) 4.48600E-03 +/- 1.2E-03
 Phase delay (usec) -3.19492109918E+03 Apriori clockrate (us/s) 2.7999998E-07 Resid phdelay (usec) -3.76432E-07 +/- 5.1E-07
 Delay rate (us/s) -1.15955938102E+00 Apriori rate (us/s) -1.15955962438E+00 Resid rate (us/s) 2.43355E-07 +/- 2.2E-09
 Total phase (deg) -174.1 Apriori accel (us/s/s) 1.03391974922E-05 Resid phase (deg) -11.7 +/- 15.8

RMS Theor. Amplitude 0.132 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 72.6 38.0 Search (2048X32) 0.131 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 113.8 66.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 27.9 22.4 Inc. seg. avg. 0.204 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 43.2 39.1 Inc. frq. avg. 0.133 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 320.5 el 38.3 pa 82.0 Y: az 43.4 el 49.2 pa -90.2 u,v (fr/asec) 12735.677 856.777 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uY..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uY.W.115.1IUDSP

Mk4/DiFX fourfit 3.21 rev 2937

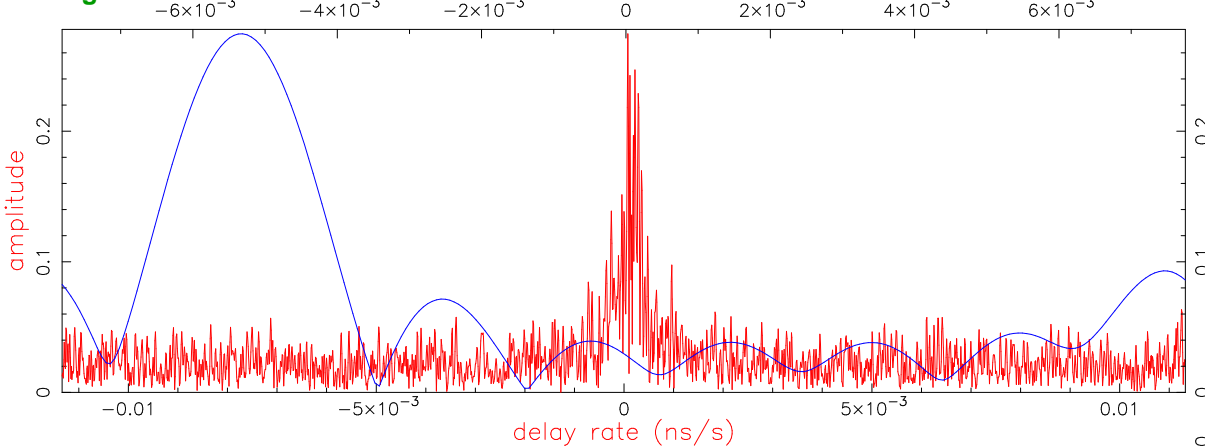
fxmanager

0102+584.1IUDSP, No0162, uy

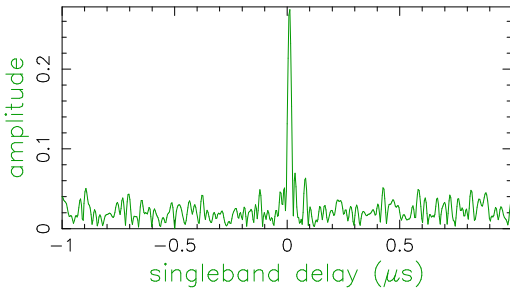
KVNU_S - KVNY_S, fgroup W, pol RL

multiband delay (μ s)

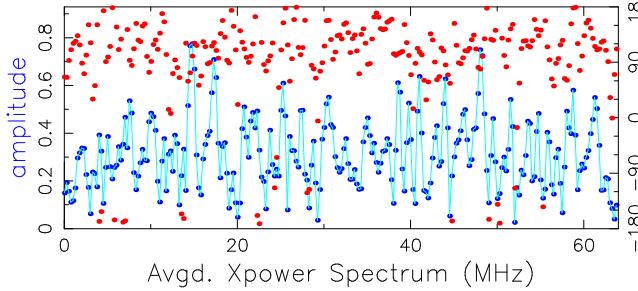
Fringe quality 9



SNR 15.6
 Int time 419.826
 Amp 0.278
 Phase -63.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.010313
 MBD -0.005347
 Fringe rate (Hz) 0.006342
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

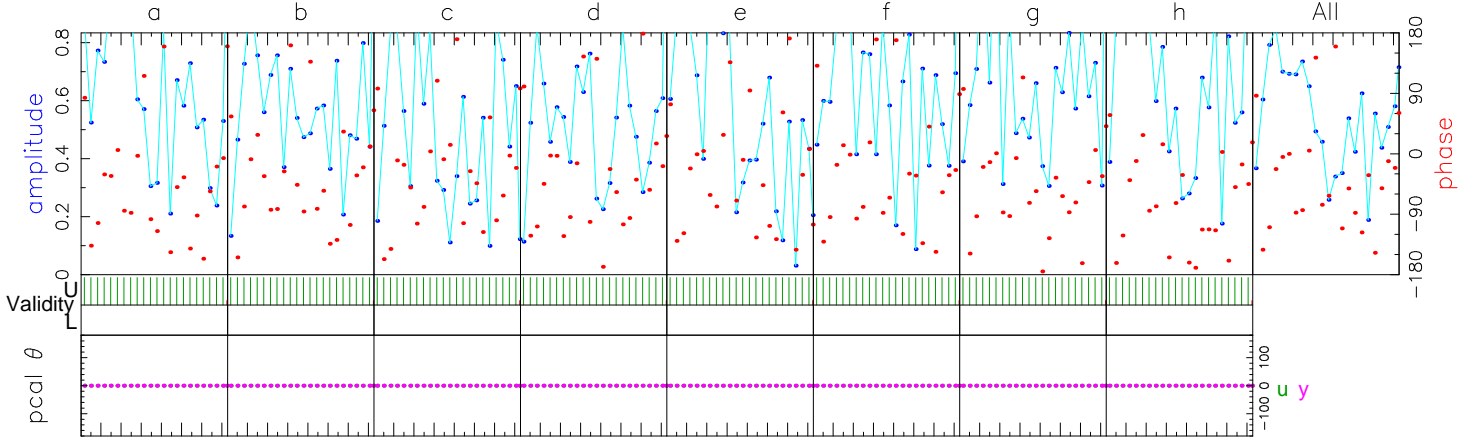


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031713
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-71.5	-59.0	-64.8	-68.1	-57.8	-57.7	-53.9	-73.8	Phase	-63.3
	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	Ampl.	0.3
	259.7	259.5	259.7	260.2	259.8	259.5	259.4	259.4	Sbd box	259.6
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-7.86056005086E+02	Apriori delay (usec)	-7.86066283028E+02	Resid mbdelay (usec)	-5.34706E-03	+/-	7.0E-05
Sband delay (usec)	-7.86055970528E+02	Apriori clock (usec)	1.3280635E+00	Resid sbdelay (usec)	1.03125E-02	+/-	5.5E-04
Phase delay (usec)	-7.86066285070E+02	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	-2.04179E-06	+/-	2.4E-07
Delay rate (us/s)	-2.39480190913E-02	Apriori rate (us/s)	-2.39480927146E-02	Resid rate (us/s)	7.36234E-08	+/-	9.8E-10
Total phase (deg)	-286.5	Apriori accel (us/s/s)	1.46439640794E-06	Resid phase (deg)	-63.3	+/-	7.4

ph/seg (deg)	RMS 70.2	Theor. 17.6	Amplitude Search (2048X32)	0.278 +/- 0.018	0.266	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
amp/seg (%)	112.2	30.8	Interp.	0.000	0.266	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	7.9	10.4	Inc. seg. avg.	0.515	0.266	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	15.5	18.2	Inc. frq. avg.	0.272	0.266	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

u: az 320.5 el 38.3 pa 82.0 y: az 319.2 el 41.0 pa 82.1 u,v (fr/asec) 265.863 53.684 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uy..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uy.W.129.1IUDSP

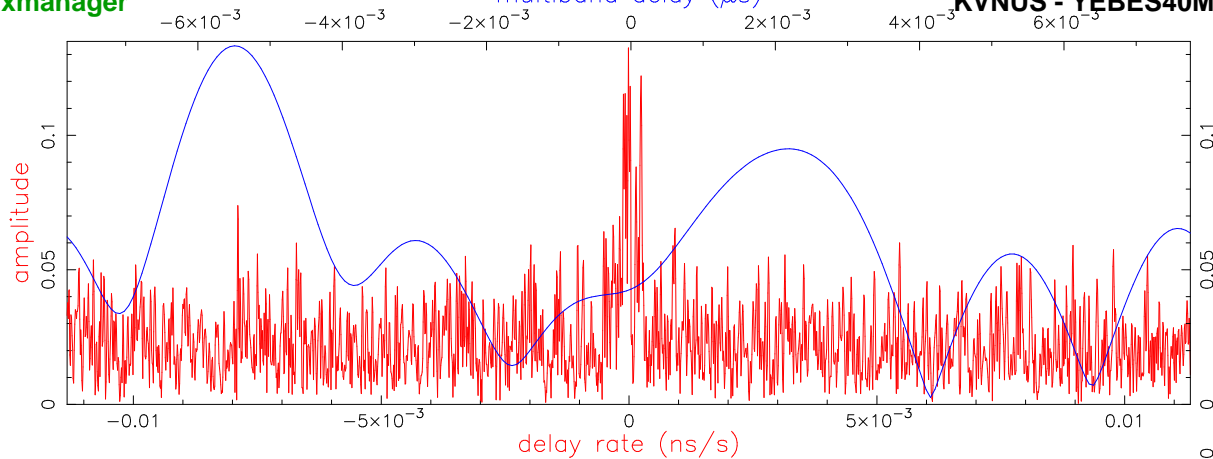
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, uY

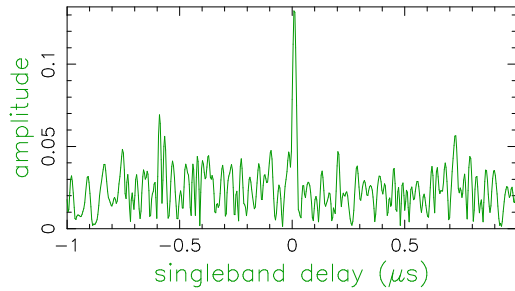
KVNUS - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

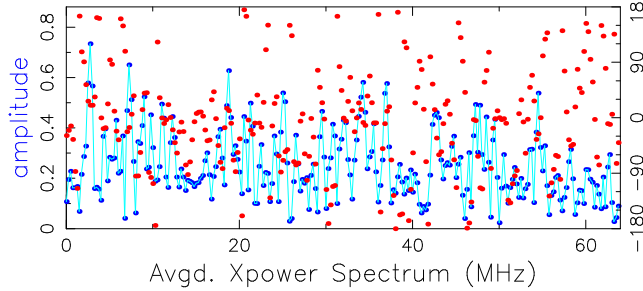


Fringe quality 9

SNR 7.4
 Int time 401.603
 Amp 0.135
 Phase 157.8
 PFD 4.6e-05
 Delays (us)
 SBD 0.009629
 MBD -0.005377
 Fringe rate (Hz)
 -0.001245
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

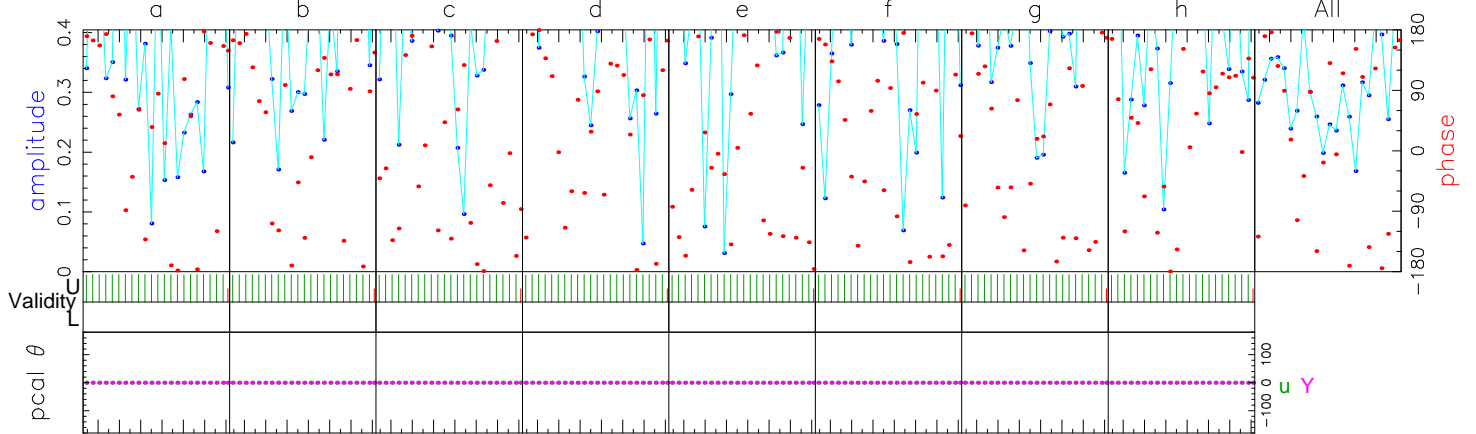


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200017.90
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031713
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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	144.6	141.9	-110.3	149.7	-133.6	119.1	-178.4	109.2	Phase	157.8
u	0.2	0.3	0.1	0.2	0.2	0.1	0.2	0.2	Ampl.	0.2
Y	260.7	259.5	324.5	230.4	259.9	361.5	260.6	257.2	Sbd box	259.5
u	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -3.19491085050E+03 Apriori delay (usec) -3.19492109881E+03 Resid mbdelay (usec) -5.37670E-03 +/- 1.5E-04
 Sband delay (usec) -3.19491146981E+03 Apriori clock (usec) -1.1120317E+01 Resid sbdelay (usec) 9.62900E-03 +/- 1.2E-03
 Phase delay (usec) -3.19492109372E+03 Apriori clockrate (us/s) 2.7999998E-07 Resid phdelay (usec) 5.08873E-06 +/- 5.0E-07
 Delay rate (us/s) -1.15955963883E+00 Apriori rate (us/s) -1.15955962438E+00 Resid rate (us/s) -1.44560E-08 +/- 2.1E-09
 Total phase (deg) -4.6 Apriori accel (us/s/s) 1.03391974922E-05 Resid phase (deg) 157.8 +/- 15.5

RMS Theor. Amplitude 0.135 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 82.0 37.2 Search (2048X32) 0.129 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 140.7 64.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 54.9 21.9 Inc. seg. avg. 0.255 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 45.3 38.3 Inc. frq. avg. 0.169 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 320.5 el 38.3 pa 82.0 Y: az 43.4 el 49.2 pa -90.2 u,v (fr/asec) 12735.677 856.777 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uY..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uY.W.131.1IUDSP

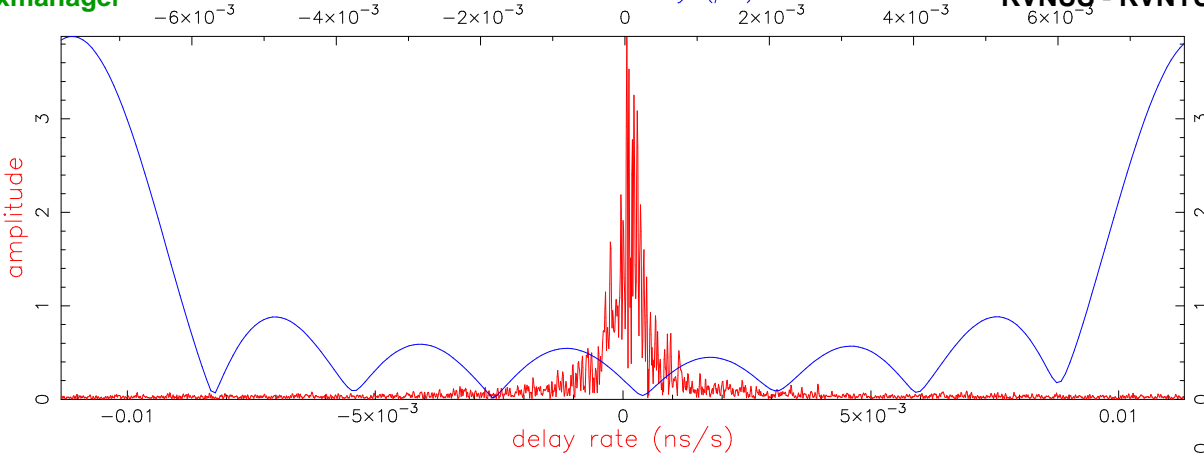
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, uy

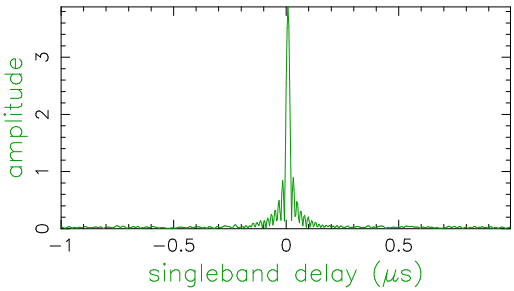
KVNU\$ - KVNY\$, fgroup W, pol LL

multiband delay (μ s)

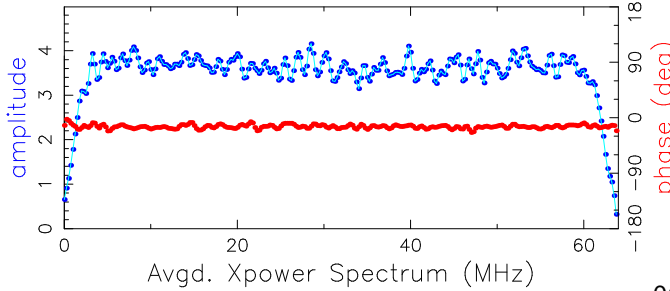


Fringe quality 5

SNR 217.5
 Int time 419.826
 Amp 3.882
 Phase 164.6
 PFD 0.0e+00
 Delays (us)
 SBD 0.007879
 MBD -0.007659
 Fringe rate (Hz)
 0.006397
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

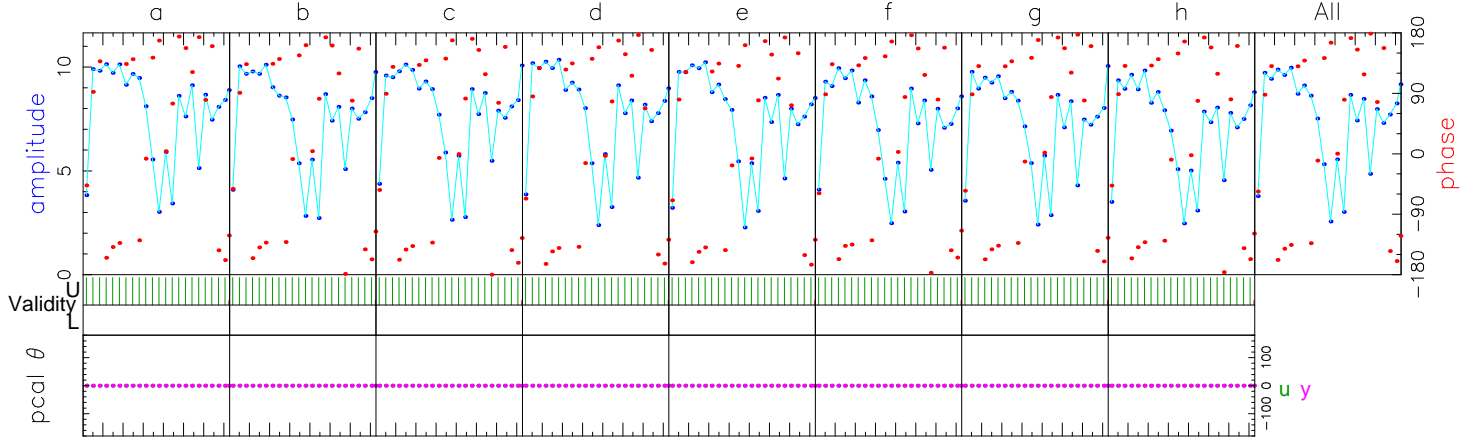


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031704
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u	1000	1000	1000	1000	1000	1000	1000	1000		
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-7.86058317524E+02	Apriori delay (usec)	-7.86066283028E+02	Resid mbdelay (usec)	-7.65950E-03	+/-	5.0E-06
Sband delay (usec)	-7.86058403778E+02	Apriori clock (usec)	1.3280635E+00	Resid sbdelay (usec)	7.87925E-03	+/-	4.0E-05
Phase delay (usec)	-7.86066277722E+02	Apriori clockrate (us/s)	2.9999999E-07	Resid phdelay (usec)	5.30687E-06	+/-	1.7E-08
Delay rate (us/s)	-2.39480184486E-02	Apriori rate (us/s)	-2.39480927146E-02	Resid rate (us/s)	7.42660E-08	+/-	7.0E-11
Total phase (deg)	-58.7	Apriori accel (us/s/s)	1.46439640794E-06	Resid phase (deg)	164.6	+/-	0.5

ph/seg (deg)	73.7	RMS	Theor.	Amplitude	3.882 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	107.8	73.7	1.3	Search (2048X32)	3.741	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	3.7	107.8	2.2	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	3.0	3.7	0.7	Inc. seg. avg.	7.442	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
		3.0	1.3	Inc. frq. avg.	3.888	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 320.5 el 38.3 pa 82.0 y: az 319.2 el 41.0 pa 82.1 u,v (fr/asec) 265.863 53.684 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uy..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uy.W.81.1IUDSP

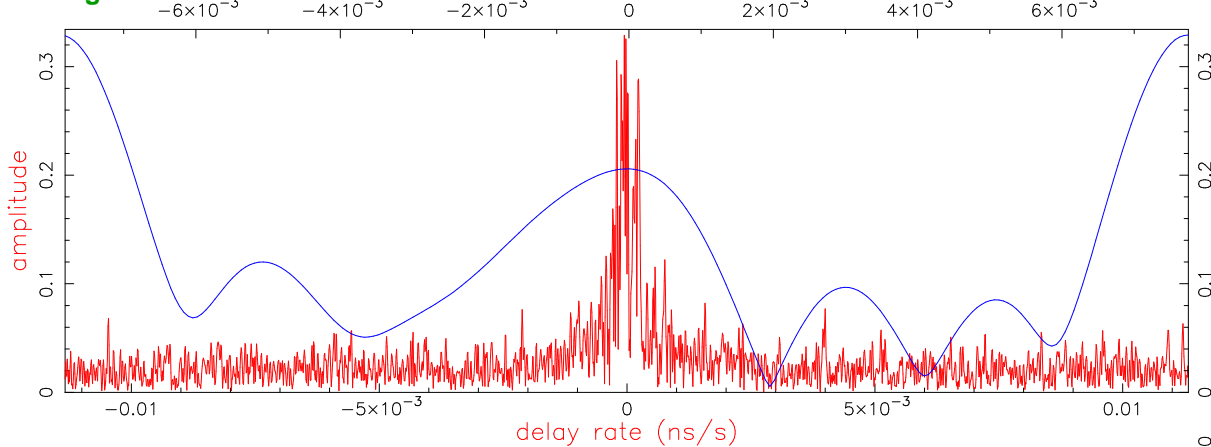
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, uY

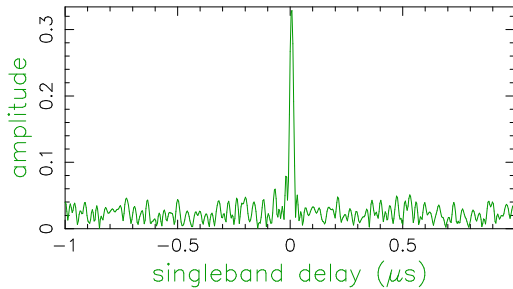
KVNUS - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

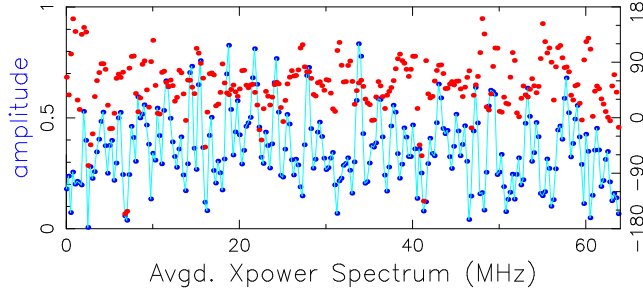


Fringe quality 8

SNR 18.3
Int time 401.603
Amp 0.334
Phase -141.8
PFD 0.0e+00
Delays (us)
SBD 0.006119
MBD -0.007924
Fringe rate (Hz)
-0.004431
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

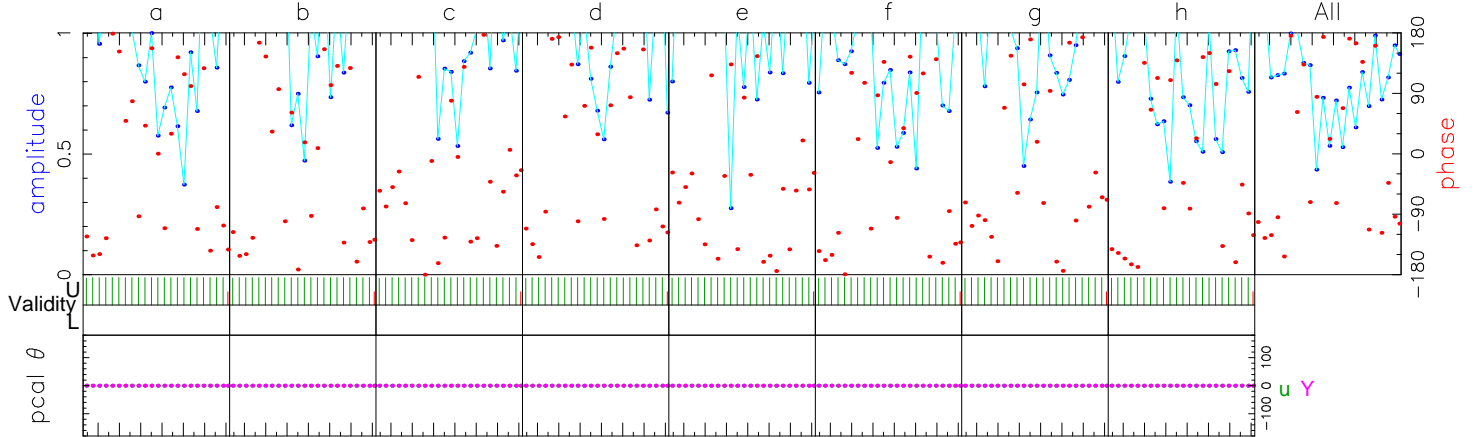


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 200017.90
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031704
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

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
	-165.9	-161.7	-81.0	-167.5	-88.6	178.6	-108.3	-173.1	Phase	-141.8
	0.3	0.5	0.4	0.4	0.4	0.4	0.4	0.4	Ampl.	0.4
	259.8	258.5	257.8	258.0	258.2	258.0	258.3	257.7	Sbd box	258.6
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

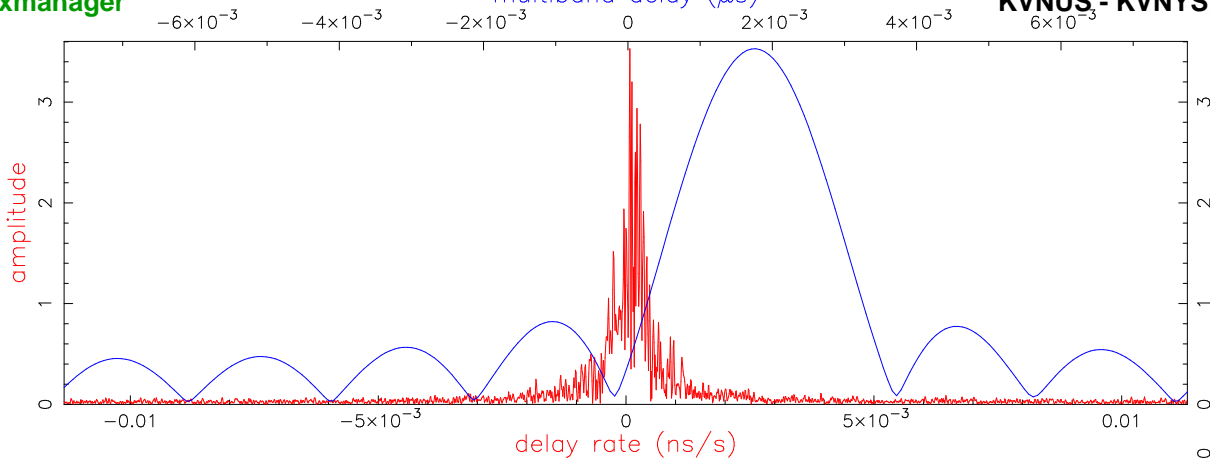
Group delay (usec)(sbd)	-3.19491339743E+03	Apriori delay (usec)	-3.19492109881E+03	Resid mbdelay (usec)	-7.92363E-03	+/-	5.9E-05
Sband delay (usec)	-3.19491497931E+03	Apriori clock (usec)	-1.1120317E+01	Resid sbdelay (usec)	6.11950E-03	+/-	4.7E-04
Phase delay (usec)	-3.19492110338E+03	Apriori clockrate (us/s)	2.7999998E-07	Resid phdelay (usec)	-4.57333E-06	+/-	2.0E-07
Delay rate (us/s)	-1.15955967582E+00	Apriori rate (us/s)	-1.15955962438E+00	Resid rate (us/s)	-5.14448E-08	+/-	8.7E-10
Total phase (deg)	-304.2	Apriori accel (us/s/s)	1.03391974922E-05	Resid phase (deg)	-141.8	+/-	6.3

ph/seg (deg)	80.6	Theor.	15.0	Amplitude	0.334 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	151.6	Search (2048X32)	0.312	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	44.4	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	29.6	Inc. seg. avg.	0.784	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011	0.011		
		Inc. frq. avg.	0.411	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

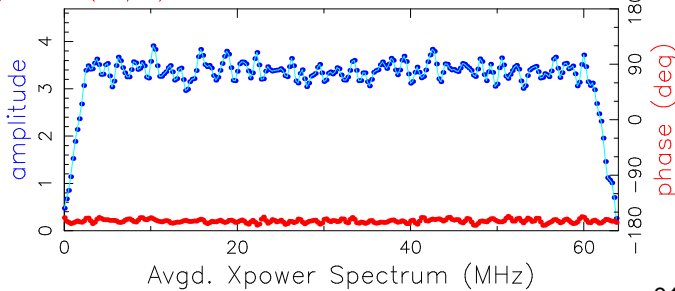
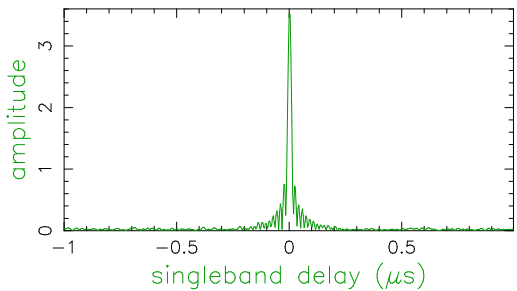
u: az 320.5 el 38.3 pa 82.0 Y: az 43.4 el 49.2 pa -90.2 u,v (fr/asec) 12735.677 856.777 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uY..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uY.W.83.1IUDSP

multiband delay (μ s)

Fringe quality 5

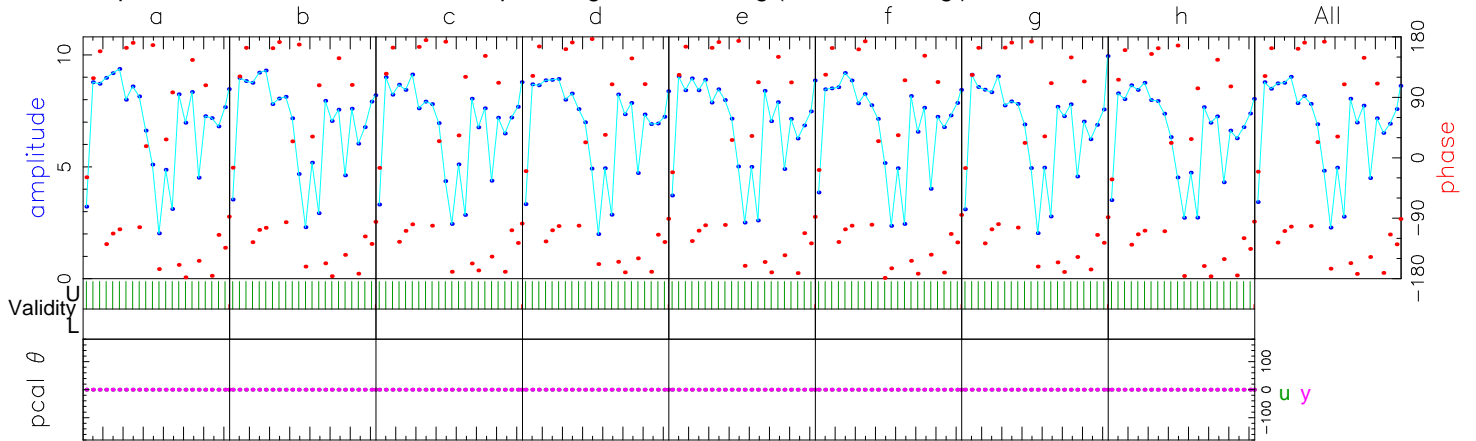


SNR 201.9
Int time 419.826
Amp 3.603
Phase -163.8
PFD 0.0e+00
Delays (us)
SBD 0.001813
MBD 0.001759
Fringe rate (Hz)
0.006399
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031707
2020:247:085004
RA & Dec (J2000)
01h02m45.762375s
+58°24'11.136621"

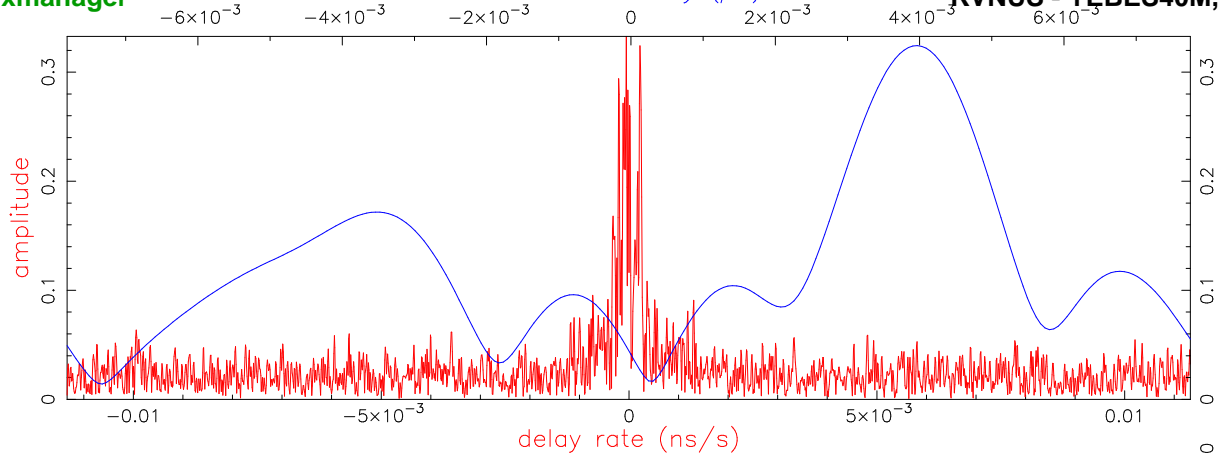
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-166.6	-164.1	-161.8	-163.1	-162.3	-161.1	-162.9	-168.7	Phase	-163.8
	3.7	3.5	3.5	3.6	3.6	3.5	3.5	3.5	Ampl.	3.5
	257.6	257.5	257.4	257.5	257.4	257.5	257.4	257.3	Sbd box	257.5
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.86064524117E+02			Apriori delay (usec)	-7.86066283028E+02			Resid mbdelay (usec)	1.75891E-03	+/- 5.4E-06
Sband delay (usec)	-7.86064469528E+02			Apriori clock (usec)	1.3280635E+00			Resid sbdelay (usec)	1.81350E-03	+/- 4.3E-05
Phase delay (usec)	-7.86066288312E+02			Apriori clockrate (us/s)	2.9999999E-07			Resid phdelay (usec)	-5.28336E-06	+/- 1.8E-08
Delay rate (us/s)	-2.39480184337E-02			Apriori rate (us/s)	-2.39480927146E-02			Resid rate (us/s)	7.42809E-08	+/- 7.6E-11
Total phase (deg)		-27.1		Apriori accel (us/s/s)	1.46439640794E-06			Resid phase (deg)	-163.8	+/- 0.6

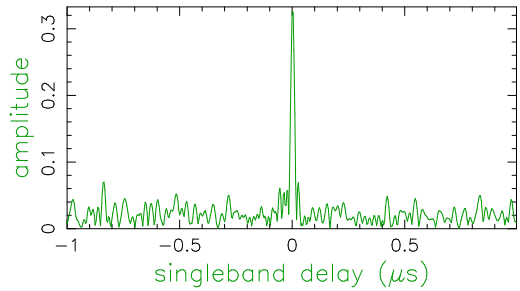
ph/seg (deg) 73.8 1.4 Theor. Amplitude 3.603 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 103.3 2.4 Search (2048X32) 3.363 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 2.8 0.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 2.6 1.4 Inc. seg. avg. 6.749 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
u: az 320.5 el 38.3 pa 82.0 y: az 319.2 el 41.0 pa 82.1 u,v (fr/asec) 265.863 53.684 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uy..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uy.W.97.1IUDSP simultaneous interpolator

multiband delay (μ s)

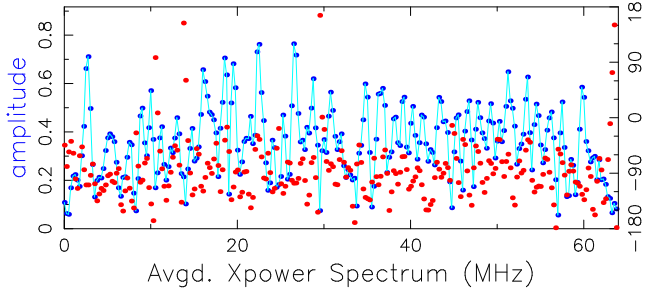


Fringe quality 8

SNR 18.2
 Int time 401.603
 Amp 0.333
 Phase -116.2
 PFD 0.0e+00
 Delays (us)
 SBD 0.001806
 MBD 0.003925
 Fringe rate (Hz)
 0.019534
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

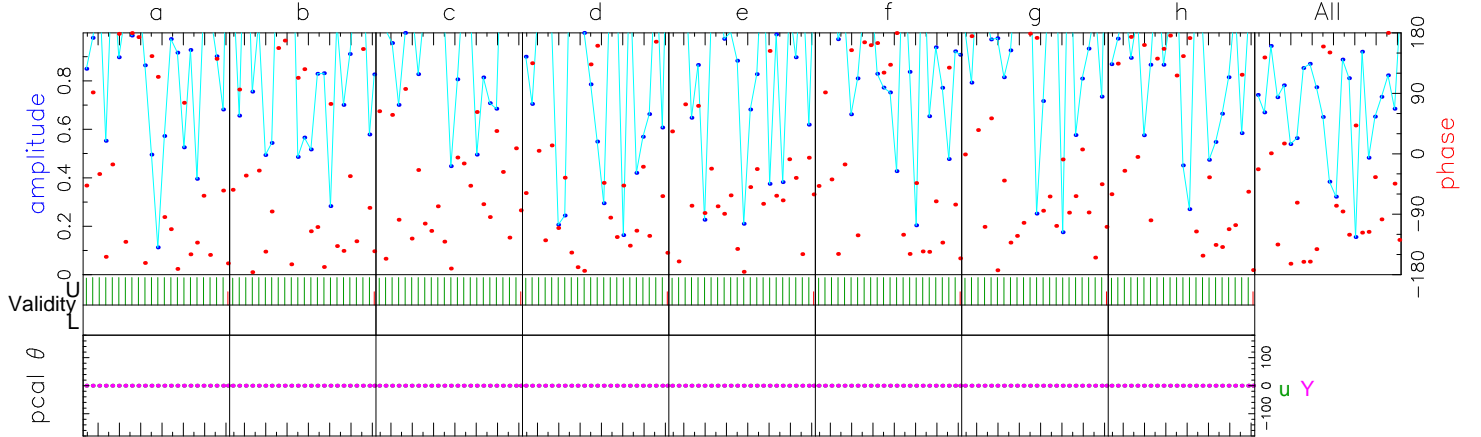


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200017.90
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031707
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



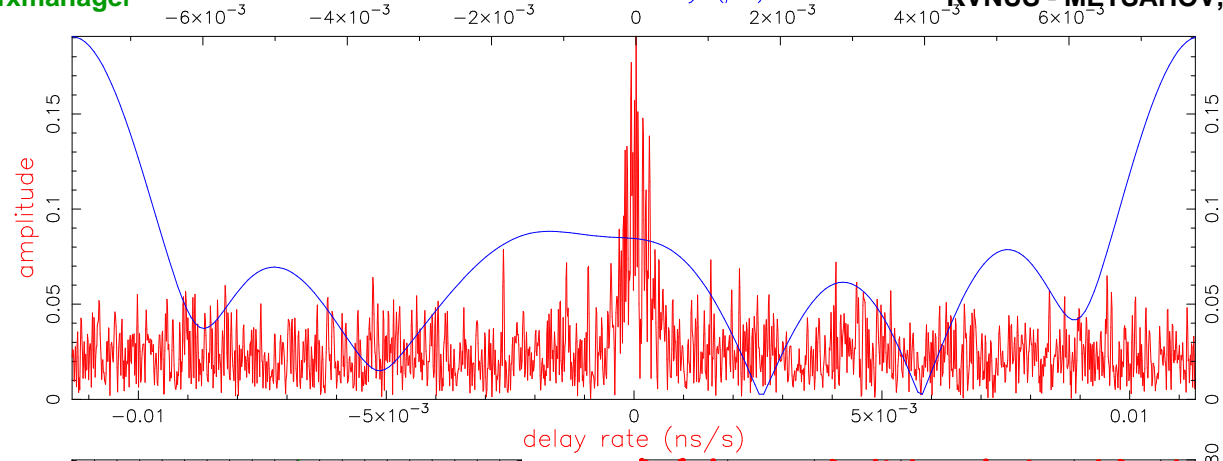
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-142.8	-142.7	-64.9	-131.0	-58.8	-146.4	-96.4	-152.1	Phase	-116.2
	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.3	Ampl.	0.4
	259.1	256.8	257.8	257.4	256.5	257.0	256.8	257.1	Sbd box	257.5
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-3.19491717403E+03	Apriori delay (usec)	-3.19492109881E+03	Resid mbdelay (usec)	3.92477E-03	+/-	6.0E-05
Sband delay (usec)	-3.19491929306E+03	Apriori clock (usec)	-1.1120317E+01	Resid sbdelay (usec)	1.80575E-03	+/-	4.7E-04
Phase delay (usec)	-3.19492110255E+03	Apriori clockrate (us/s)	2.7999998E-07	Resid phdelay (usec)	-3.74866E-06	+/-	2.0E-07
Delay rate (us/s)	-1.15955939760E+00	Apriori rate (us/s)	-1.15955962438E+00	Resid rate (us/s)	2.26775E-07	+/-	8.7E-10
Total phase (deg)	-278.6	Apriori accel (us/s/s)	1.03391974922E-05	Resid phase (deg)	-116.2	+/-	6.3

ph/seg (deg)	RMS 72.5	Theor. 15.1	Amplitude Search (2048X32)	0.333 +/- 0.018	0.314	PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	123.1	26.3	Interp.	0.000	0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	41.1	8.9	Inc. seg. avg.	0.665	Sample rate(MISamp/s): 128	nlags: 256	dr window (ns/s)	-0.011	0.011	
amp/frq (%)	22.7	15.5	Inc. frq. avg.	0.392	Data rate(Mb/s): 2048	t_cohere infinite	ion window (TEC)	0.00	0.00	

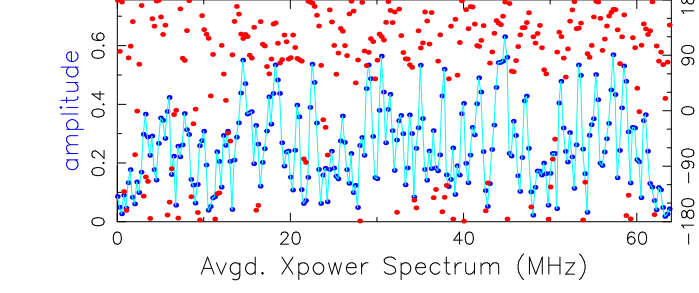
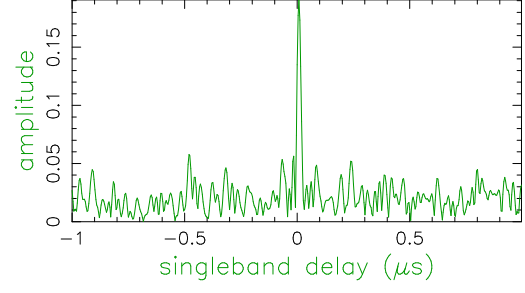
u: az 320.5 el 38.3 pa 82.0 Y: az 43.4 el 49.2 pa -90.2 u,v (fr/asec) 12735.677 856.777 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uY..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uY.W.99.1IUDSP

multiband delay (μ s)



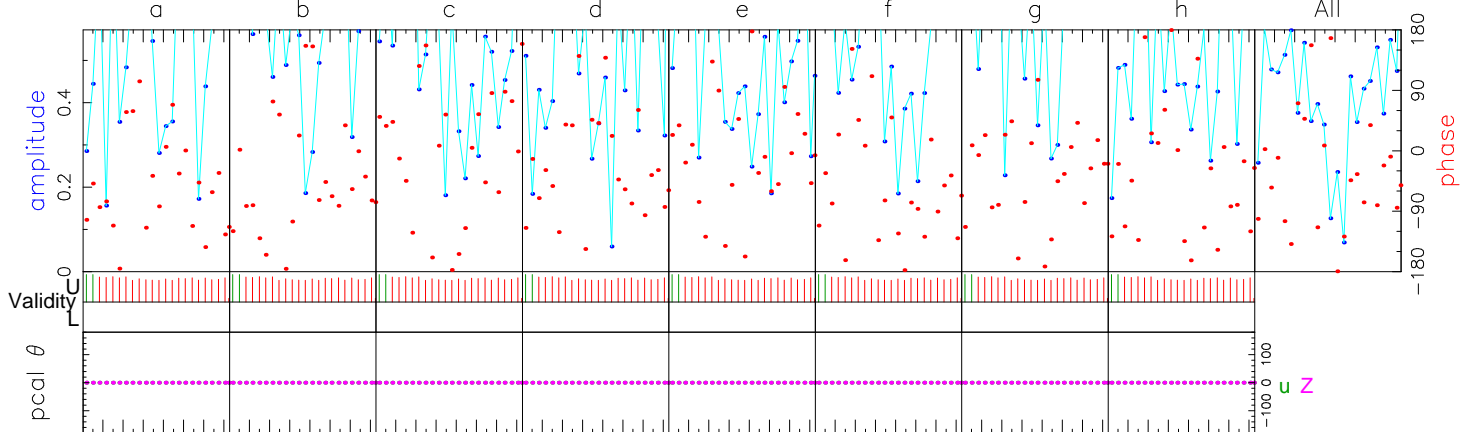
Fringe quality 9

SNR 9.9
 Int time 361.415
 Amp 0.191
 Phase -47.9
 PFD 1.5e-14
 Delays (us)
 SBD 0.007502
 MBD -0.007819
 Fringe rate (Hz)
 0.003657
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031708
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

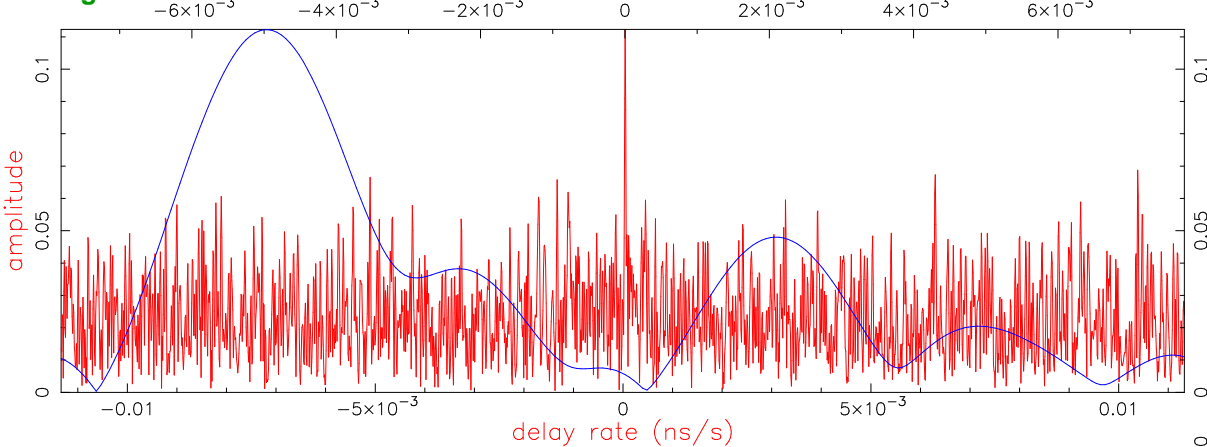
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-67.2	-61.5	12.8	-54.7	7.2	-81.1	-28.1	-93.8	Phase	-47.9
	0.2	0.3	0.1	0.2	0.2	0.2	0.3	0.2	Ampl.	0.2
	260.2	259.1	363.6	258.8	257.5	258.7	258.4	259.9	Sbd box	258.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-7.44374529305E+03		Apriori delay (usec)	-7.44375309878E+03	Resid mbdelay (usec)	-7.81927E-03	+/-	1.1E-04		
Sband delay (usec)	-7.44374559703E+03		Apriori clock (usec)	2.4272523E+00	Resid sbdelay (usec)	7.50175E-03	+/-	8.7E-04		
Phase delay (usec)	-7.44375310032E+03		Apriori clockrate (us/s)	3.8399996E-07	Resid phdelay (usec)	-1.54313E-06	+/-	3.7E-07		
Delay rate (us/s)	-8.41449788839E-01		Apriori rate (us/s)	-8.41449831296E-01	Resid rate (us/s)	4.24575E-08	+/-	1.5E-09		
Total phase (deg)		-22.2	Apriori accel (us/s/s)	1.19863478138E-05	Resid phase (deg)	-47.9	+/-	11.6		

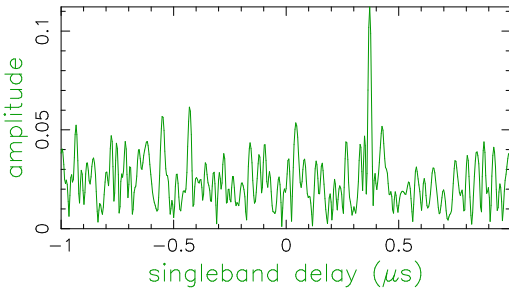
ph/seg (deg) 75.9 27.7 Search (2048X32) 0.188 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 135.9 48.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.7 16.3 Inc. seg. avg. 0.369 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.2 28.5 Inc. frq. avg. 0.219 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 320.5 el 38.3 pa 82.0 Z: az 82.1 el 73.9 pa -69.9 u,v (fr/asec) 9252.735 98.781 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uZ..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uZ.W.100.1IUDSP

multiband delay (μs)

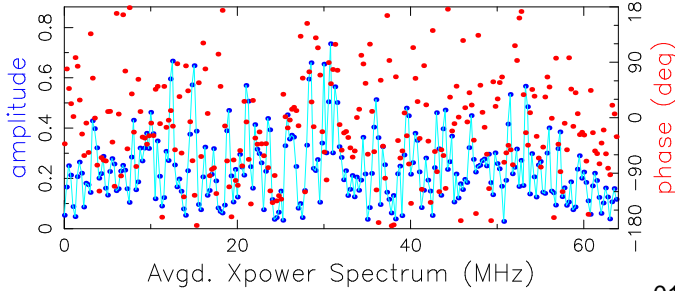


Fringe quality 0

SNR 5.8
 Int time 361.415
 Amp 0.112
 Phase -11.2
 PFD 7.4e-01
 Delays (us)
 SBD 0.370802
 MBD -0.004967
 Fringe rate (Hz)
 0.003738
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

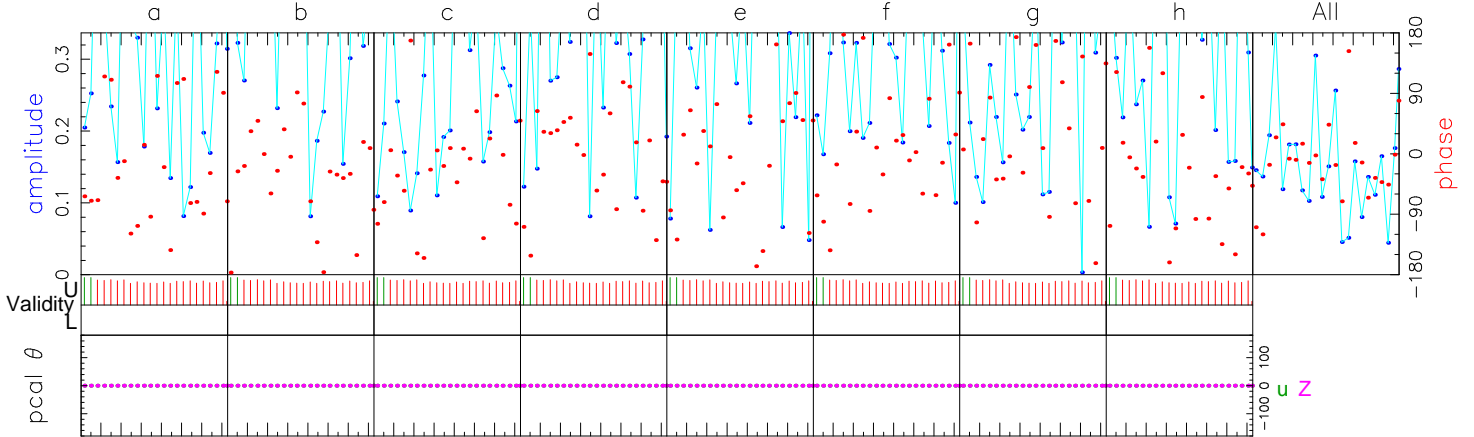


delay rate (ns/s)



Exp. c202b
 Yr:day 16383
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031711
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-55.4	-1.5	-18.3	12.2	7.4	-20.5	2.7	-28.6		-11.2
	0.1	0.2	0.1	0.2	0.1	0.2	0.0	0.1	Ampl.	0.1
	249.9	353.2	90.3	351.3	65.2	35.6	487.3	29.6	Sbd box	351.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

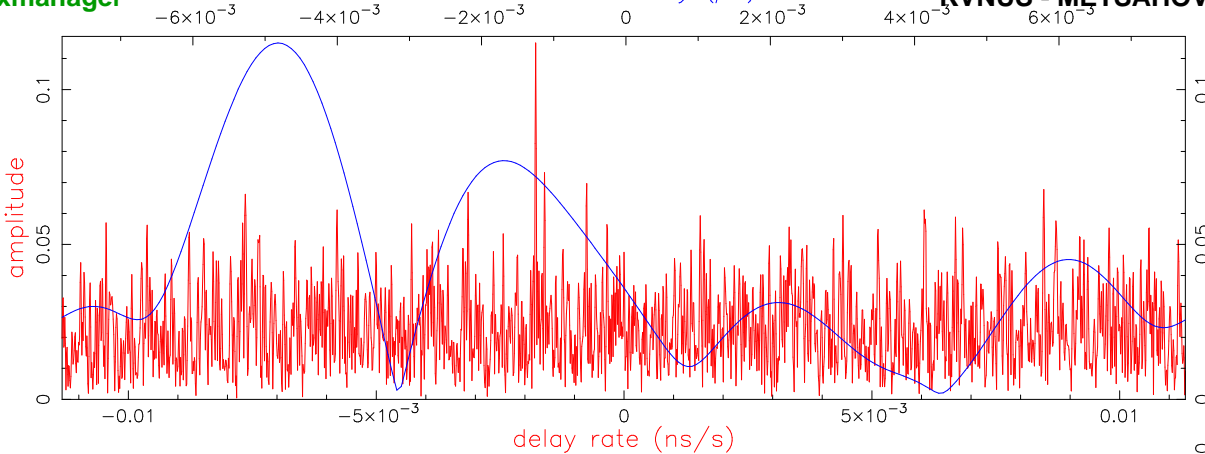
Group delay (usec)(sbd)	-7.44338306558E+03	Apriori delay (usec)	-7.44375309878E+03	Resid mbdelay (usec)	-4.96681E-03	+/-	1.9E-04
Sband delay (usec)	-7.44338229653E+03	Apriori clock (usec)	2.4272523E+00	Resid sbdelay (usec)	3.70802E-01	+/-	1.5E-03
Phase delay (usec)	-7.44375309914E+03	Apriori clockrate (us/s)	3.8399996E-07	Resid phdelay (usec)	-3.62357E-07	+/-	6.3E-07
Delay rate (us/s)	-8.41449787902E-01	Apriori rate (us/s)	-8.41449831296E-01	Resid rate (us/s)	4.33949E-08	+/-	2.6E-09
Total phase (deg)	-345.6	Apriori accel (us/s/s)	1.19863478138E-05	Resid phase (deg)	-11.2	+/-	19.6

ph/seg (deg)	56.7	Theor.	47.1	Amplitude	0.112 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
amp/seg (%)	75.8	Search (2048X32)	0.112	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
ph/frq (deg)	24.4	Inc. seg. avg.	0.114	Inc. frq. avg.	0.106	Bits/sample: 2x2	SampCntNorm: enabled
amp/frq (%)	42.8	Inc. frq. avg.	0.106	Sample rate(MSamp/s): 128		Data rate(Mb/s): 2048	nlags: 256
				u, v (fr/asec) 9252.735 98.781			t_cohere infinite

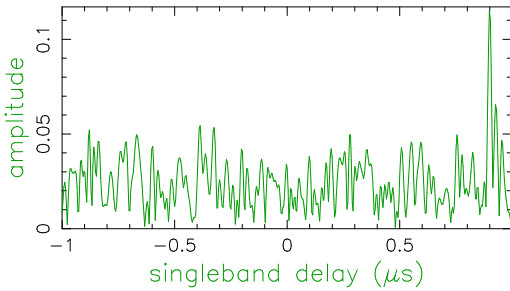
u: az 320.5 el 38.3 pa 82.0 Z: az 82.1 el 73.9 pa -69.9 u, v (fr/asec) 9252.735 98.781 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uZ..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uZ.W.117.1IUDSP

multiband delay (μ s)

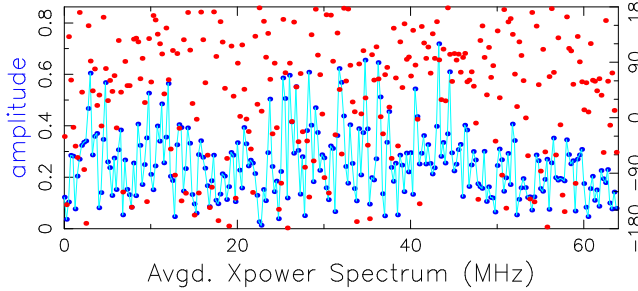
Fringe quality 0



SNR 6.0
 Int time 361.415
 Amp 0.117
 Phase 67.8
 PFD 3.5e-01
 Delays (us)
 SBD 0.899579
 MBD -0.004819
 Fringe rate (Hz)
 -0.153588
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

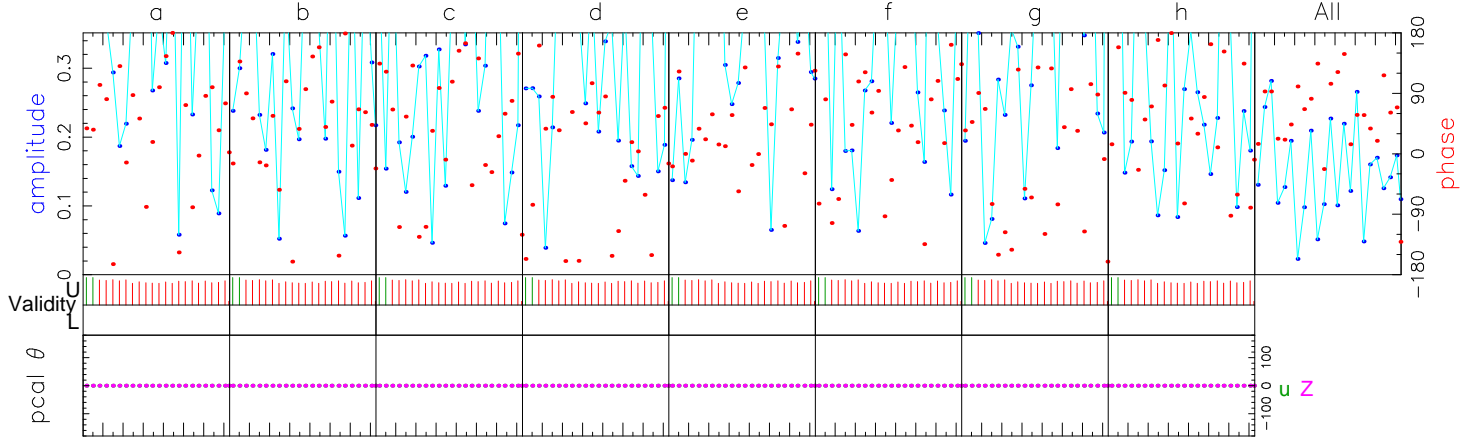


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031714
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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		
u	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
u:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	-7.44285166795E+03	Apriori delay (usec)	-7.44375309878E+03	Resid mbdelay (usec)	-4.81917E-03	+/-	1.8E-04
Sband delay (usec)	-7.44285352028E+03	Apriori clock (usec)	2.4272523E+00	Resid sbdelay (usec)	8.99579E-01	+/-	1.4E-03
Phase delay (usec)	-7.44375309659E+03	Apriori clockrate (us/s)	3.8399996E-07	Resid phdelay (usec)	2.18712E-06	+/-	6.1E-07
Delay rate (us/s)	-8.41451614304E-01	Apriori rate (us/s)	-8.41449831296E-01	Resid rate (us/s)	-1.78301E-06	+/-	2.5E-09
Total phase (deg)	-266.5	Apriori accel (us/s/s)	1.19863478138E-05	Resid phase (deg)	67.8	+/-	19.0

ph/seg (deg)	45.2	Theor.	45.6	Amplitude	0.117 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	67.0		79.5	Search (2048X32)	0.114	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	24.1		26.9	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	62.9		46.9	Inc. seg. avg.	0.116	Sample rate(MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.112	Data rate(Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

u: az 320.5 el 38.3 pa 82.0 Z: az 82.1 el 73.9 pa -69.9 u,v (fr/asec) 9252.735 98.781 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uZ..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uZ.W.134.1IUDSP

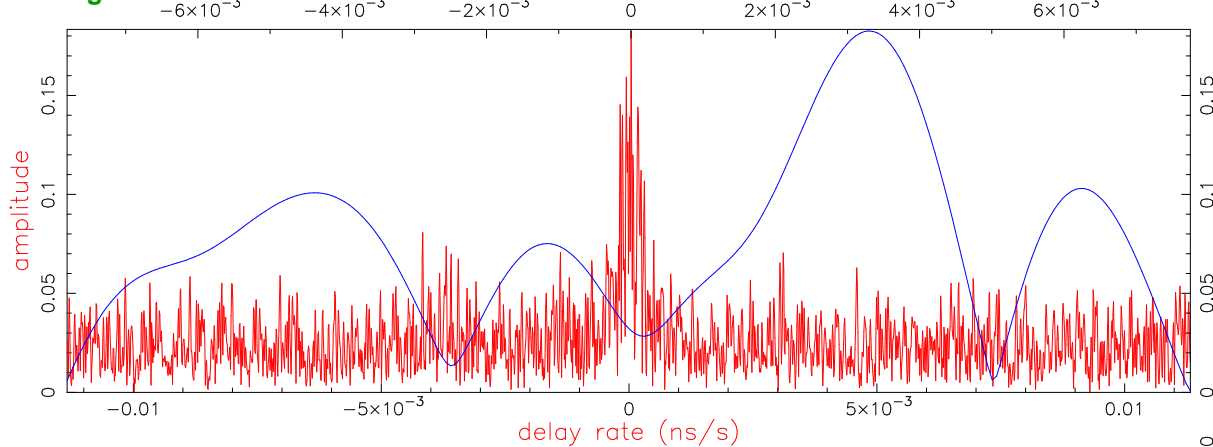
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, uZ

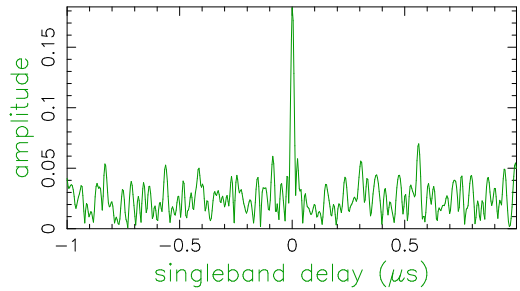
KVNUS - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

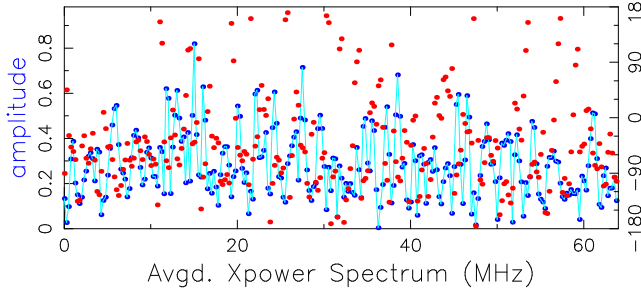


Fringe quality 9

SNR 9.5
 Int time 361.415
 Amp 0.183
 Phase -92.4
 PFD 6.3e-13
 Delays (us)
 SBD 0.000849
 MBD 0.003338
 Fringe rate (Hz) 0.003656
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

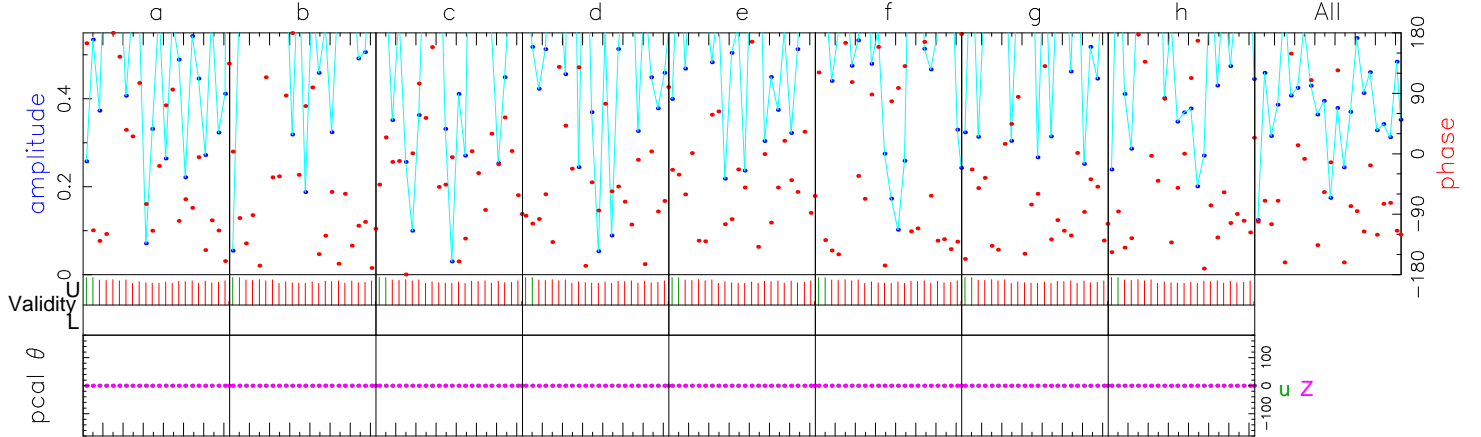


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031704
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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
	-133.7	-120.9	-12.8	-84.7	-53.4	-145.8	-80.6	-101.8	Phase	-92.4
	0.1	0.2	0.3	0.2	0.2	0.3	0.2	0.3	Ampl.	0.2
	463.2	257.8	256.8	257.0	256.6	256.8	255.2	256.7	Sbd box	257.2
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
u	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
u:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
u:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
u	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -7.44374976065E+03 Apriori delay (usec) -7.44375309878E+03 Resid mbdelay (usec) 3.33813E-03 +/- 1.1E-04
 Sband delay (usec) -7.44375224978E+03 Apriori clock (usec) 2.4272523E+00 Resid sbdelay (usec) 8.49000E-04 +/- 9.0E-04
 Phase delay (usec) -7.44375310176E+03 Apriori clockrate (us/s) 3.8399996E-07 Resid phdelay (usec) -2.97909E-06 +/- 3.9E-07
 Delay rate (us/s) -8.41449788852E-01 Apriori rate (us/s) -8.41449831296E-01 Resid rate (us/s) 4.24440E-08 +/- 1.6E-09
 Total phase (deg) -66.7 Apriori accel (us/s/s) 1.19863478138E-05 Resid phase (deg) -92.4 +/- 12.0

RMS Theor. Amplitude 0.183 +/- 0.019 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 68.8 28.8 Search (2048X32) 0.179 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 128.5 50.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 47.4 17.0 Inc. seg. avg. 0.345 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 39.6 29.7 Inc. frq. avg. 0.229 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

u: az 320.5 el 38.3 pa 82.0 Z: az 82.1 el 73.9 pa -69.9 u,v (fr/asec) 9252.735 98.781 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/uZ..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/uZ.W.84.1IUDSP