

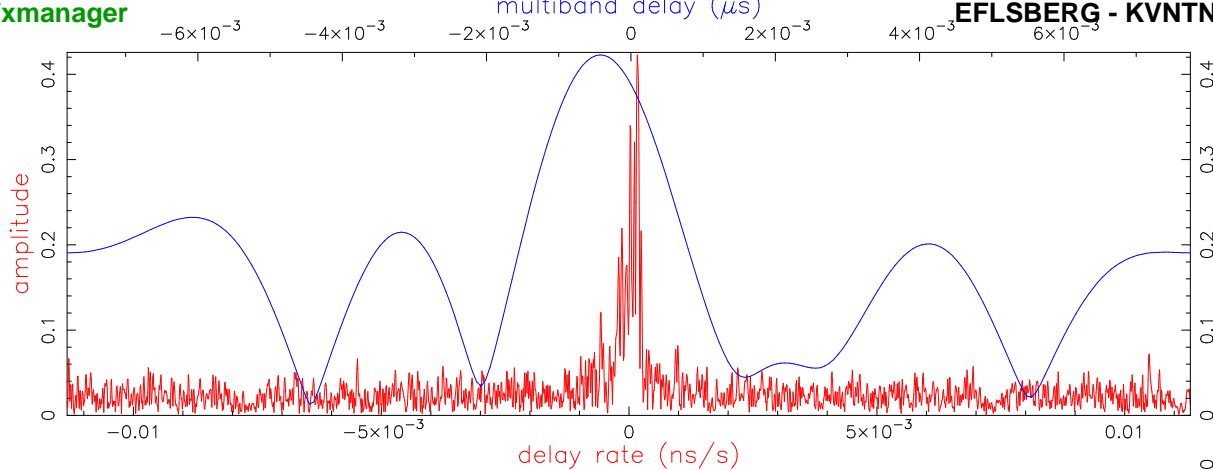
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IU DSP, No0162, Bt

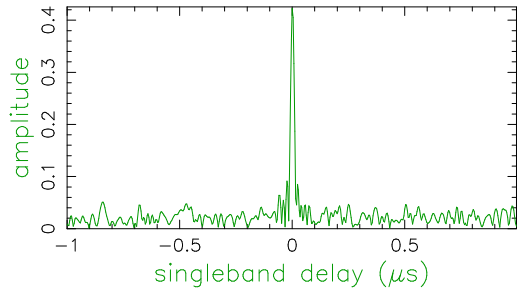
EFLSBERG - KVNTN, fgroup W, pol LL

multiband delay (μ s)

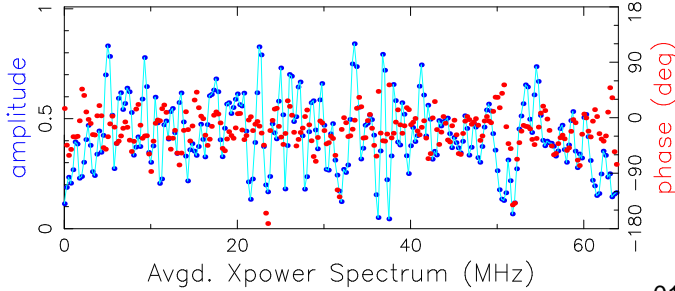


Fringe quality 8

SNR 23.8
 Int time 419.814
 Amp 0.426
 Phase -2.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.001083
 MBD -0.000391
 Fringe rate (Hz)
 0.014568
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

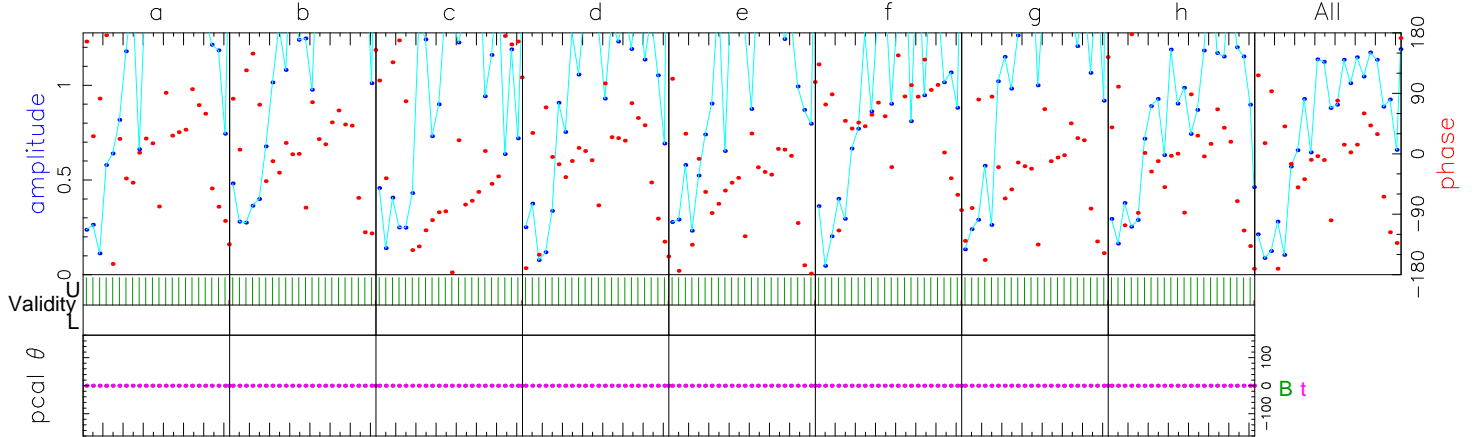


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031648
 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			
B	1000	1000	1000	1000	1000	1000	1000	1000			
t	1000	1000	1000	1000	1000	1000	1000	1000			
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
B	1000	1000	1000	1000	1000	1000	1000	1000			
t	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL			
Group delay (usec)(sbd)		5.75293086172E+03			5.75293125280E+03				Resid mbdelay (usec)	-3.91074E-04	+/- 4.6E-05
Sband delay (usec)		5.75293233630E+03			8.7169361E+00				Resid sbdelay (usec)	1.08350E-03	+/- 3.6E-04
Phase delay (usec)		5.75293125271E+03			-2.9999999E-07				Resid phdelay (usec)	-8.85824E-08	+/- 1.5E-07
Delay rate (us/s)		1.02774197259E+00			1.02774180346E+00				Resid rate (us/s)	1.69122E-07	+/- 6.4E-10
Total phase (deg)			38.9		-9.07517975169E-06				Resid phase (deg)	-2.7	+/- 4.8

ph/seg (deg) 73.5 11.5 Search (2048X32) 0.417 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 118.1 20.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 50.5 6.8 Inc. seg. avg. 0.750 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.4 11.9 Inc. frq. avg. 0.544 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 t: az 321.4 el 38.0 pa 87.5 u,v (fr/asec) -11288.586 3.633 simultaneous interpolator

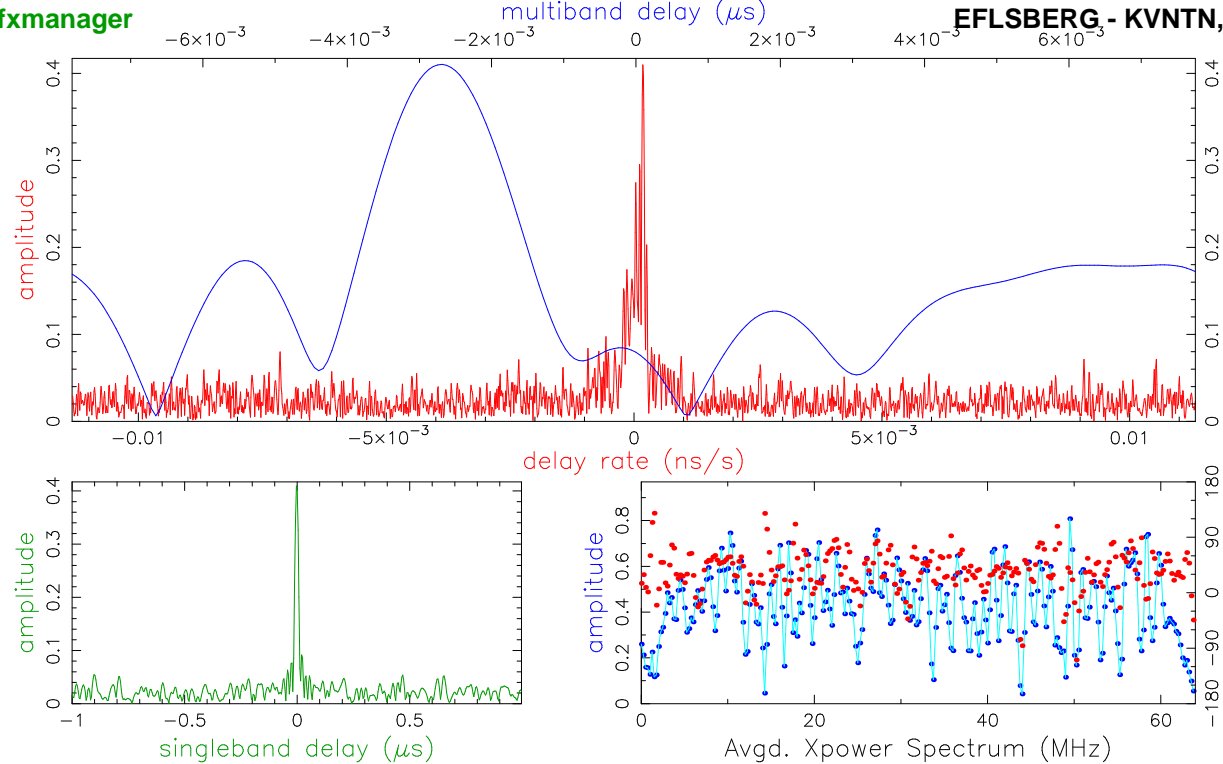
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bt..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bt.W.2.1IU DSP

Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, Bt

EFLSBERG₃ - KVNTN, fgroup W, pol RR

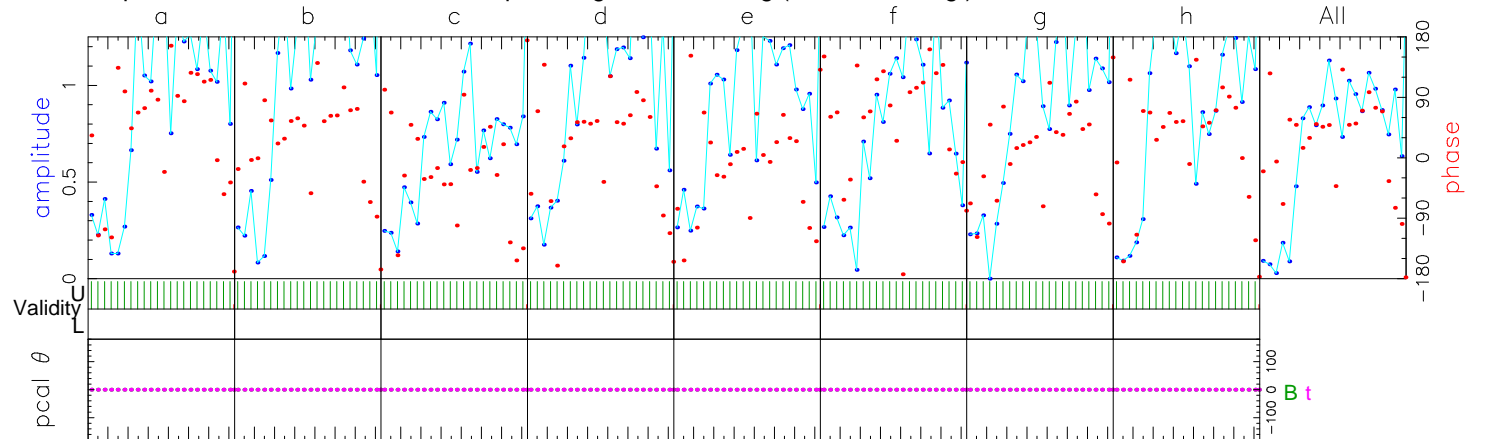


Fringe quality 8

SNR 23.4
 Int time 419.814
 Amp 0.417
 Phase 42.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.002198
 MBD -0.002640
 Fringe rate (Hz) 0.014862
 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
 2021:029:031651
 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			
B	1000	1000	1000	1000	1000	1000	1000	1000			
t	1000	1000	1000	1000	1000	1000	1000	1000			
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0			
B	1000	1000	1000	1000	1000	1000	1000	1000			
t	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR			
Group delay (usec)(sbd)		5.75292861257E+03			5.75293125280E+03				Resid mbdelay (usec)	-2.64022E-03	+/- 4.6E-05
Sband delay (usec)		5.75292905480E+03			8.7169361E+00				Resid sbdelay (usec)	-2.19800E-03	+/- 3.7E-04
Phase delay (usec)		5.75293125416E+03			-2.9999999E-07				Resid phdelay (usec)	1.36499E-06	+/- 1.6E-07
Delay rate (us/s)		1.02774197599E+00			1.02774180346E+00				Resid rate (us/s)	1.72530E-07	+/- 6.5E-10
Total phase (deg)			84.0		-9.07517975169E-06				Resid phase (deg)	42.3	+/- 4.9

ph/seg (deg) 63.7 11.8 Search (2048X32) 0.400 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 109.6 20.5 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 43.1 6.9 Inc. seg. avg. 0.686 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.9 12.1 Inc. frq. avg. 0.489 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 t: az 321.4 el 38.0 pa 87.5 u,v (fr/asec) -11288.586 3.633 ion window (TEC) 0.00 0.00 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bt.1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bt.W.22.1IUDSP

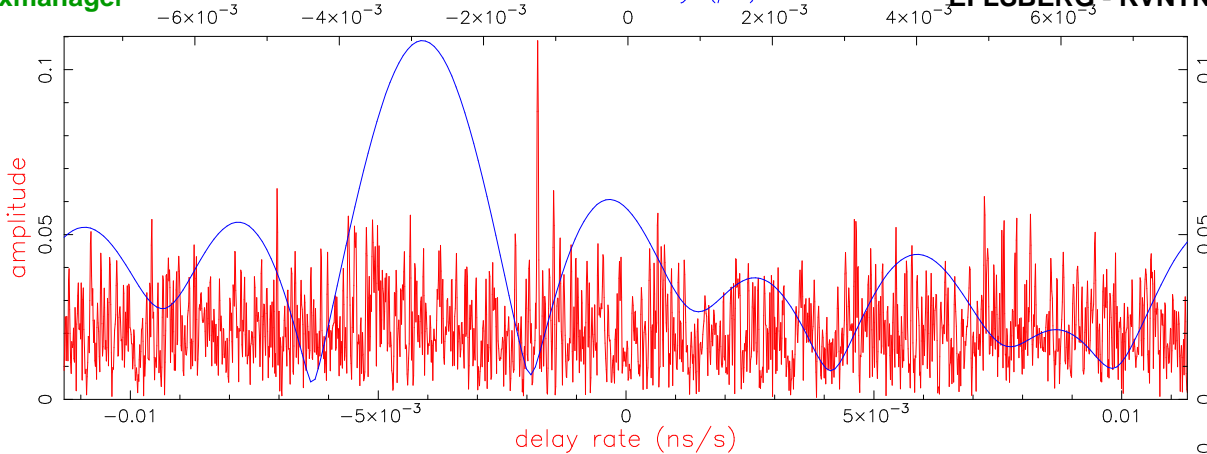
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, Bt

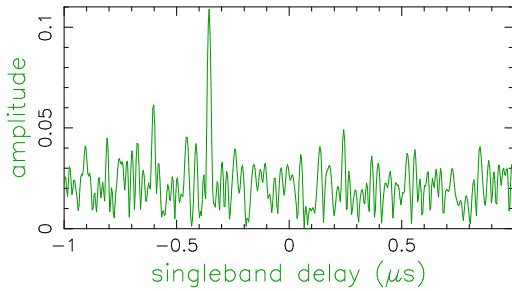
EFLSBERG - KVNTN, fgroup W, pol LR

multiband delay (μ s)

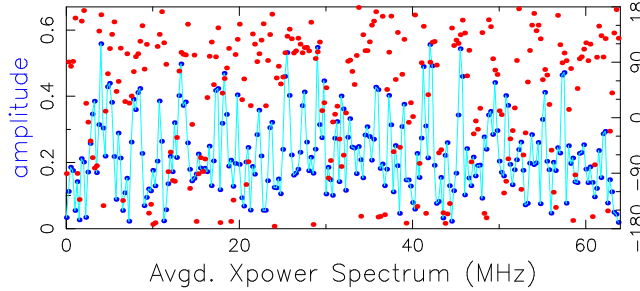


Fringe quality 0

SNR 6.1
Int time 419.814
Amp 0.110
Phase 8.5
PFD 2.4e-01
Delays (us)
SBD -0.356018
MBD -0.002866
Fringe rate (Hz)
-0.153693
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

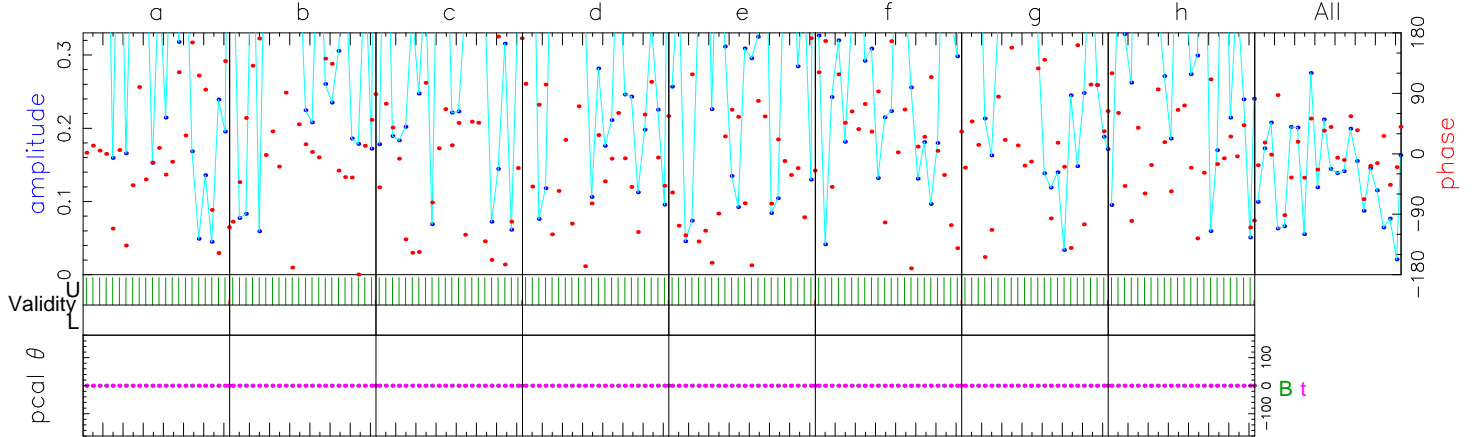


delay rate (ns/s)



Exp. c202b
Yr:day 16383
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031655
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		
B	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

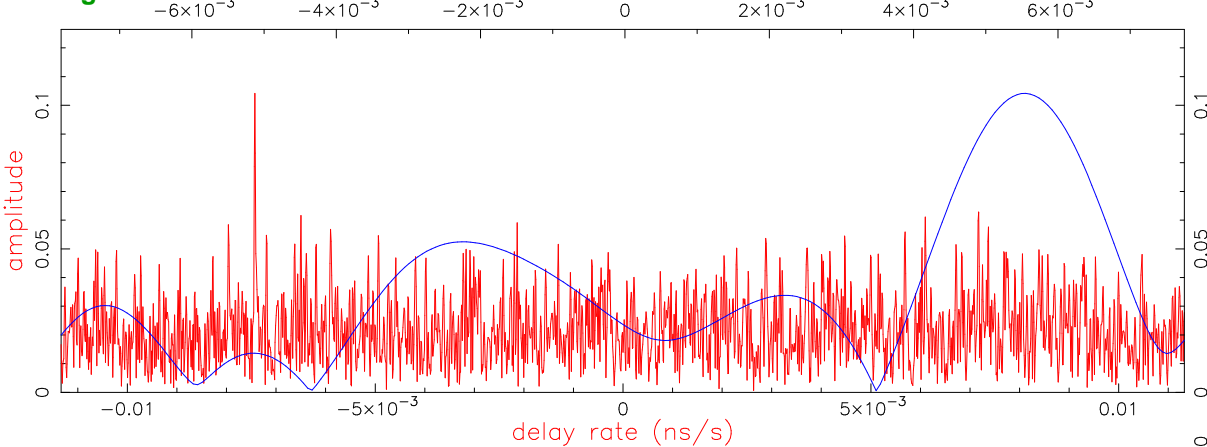
Group delay (usec)(sbd)	5.75256901175E+03	Apriori delay (usec)		5.75293125280E+03	Resid mbdelay (usec)		-2.86605E-03	+/-	1.8E-04	
Sband delay (usec)	5.75257523455E+03	Apriori clock (usec)		8.7169361E+00	Resid sbdelay (usec)		-3.56018E-01	+/-	1.4E-03	
Phase delay (usec)	5.75293125307E+03	Apriori clockrate (us/s)		-2.9999999E-07	Resid phdelay (usec)		2.74727E-07	+/-	6.1E-07	
Delay rate (us/s)	1.02774001924E+00	Apriori rate (us/s)		1.02774180346E+00	Resid rate (us/s)		-1.78423E-06	+/-	2.5E-09	
Total phase (deg)		50.2	Apriori accel (us/s/s)		-9.07517975169E-06	Resid phase (deg)		8.5	+/-	18.8

ph/seg (deg)	42.7	45.0	Amplitude		0.110 +/- 0.018	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
amp/seg (%)	62.5	78.5	Search (2048X32)		0.107	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000		
ph/frq (deg)	37.0	26.5	Interp.		0.000	Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	43.3	46.3	Inc. seg. avg.		0.104	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011 0.011		
			Inc. frq. avg.		0.113	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 t: az 321.4 el 38.0 pa 87.5 u,v (fr/asec) -11288.586 3.633 simultaneous interpolator

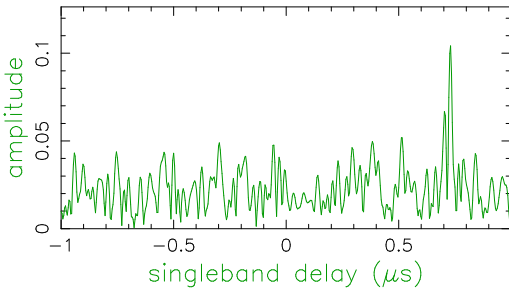
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bt.1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bt.W.43.1IUDSP

multiband delay (μ s)

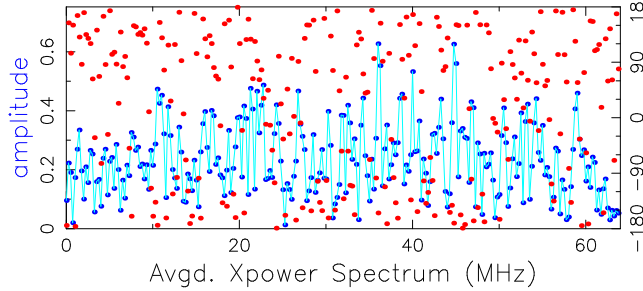


Fringe quality 0

SNR 5.9
 Int time 419.814
 Amp 0.126
 Phase -159.5
 PFD 6.2e-01
 Delays (us)
 SBD 0.729257
 MBD 0.005527
 Fringe rate (Hz)
 -0.641178
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

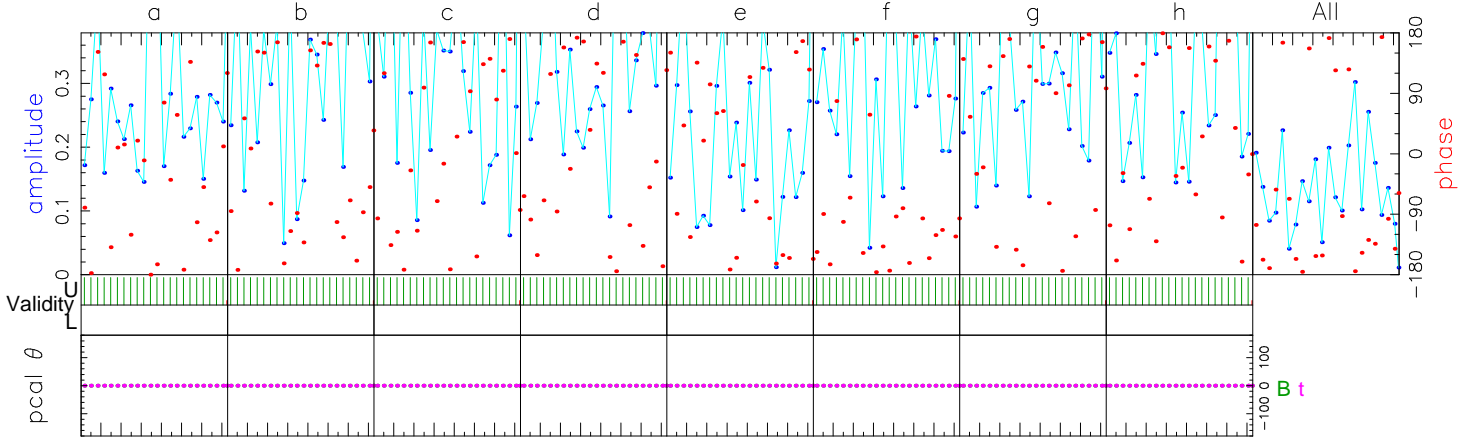


delay rate (ns/s)



Exp. c202b
 Yr:day 16383
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031659
 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	86140.00	86140.00
B	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
t	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd)	5.7536552971E+03	Apriori delay (usec)	5.75293125280E+03	Resid mbdelay (usec)	5.52691E-03	+/-	1.8E-04
Sband delay (usec)	5.75366050930E+03	Apriori clock (usec)	8.7169361E+00	Resid sbdelay (usec)	7.29257E-01	+/-	1.5E-03
Phase delay (usec)	5.75293124765E+03	Apriori clockrate (us/s)	-2.9999999E-07	Resid phdelay (usec)	-5.14246E-06	+/-	6.3E-07
Delay rate (us/s)	1.02773436003E+00	Apriori rate (us/s)	1.02774180346E+00	Resid rate (us/s)	-7.44344E-06	+/-	2.6E-09
Total phase (deg)	-117.8	Apriori accel (us/s/s)	-9.07517975169E-06	Resid phase (deg)	-159.5	+/-	19.4

ph/seg (deg)	48.3	RMS	46.6	Theor.	46.6	Amplitude	0.126 +/- 0.021	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	72.0		81.4		81.4	Search (2048X32)	0.100	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
ph/frq (deg)	33.7		27.5		27.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm:	enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	46.1		48.0		48.0	Inc. seg. avg.	0.127	Sample rate (MSamp/s):	128			ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.125	Data rate (Mb/s):	2048	nlags:	256	t_cohere	infinite	

B: az 54.8 el 61.0 pa -84.1 t: az 321.4 el 38.0 pa 87.5 u,v (fr/asec) -11288.586 3.633 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bt..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/Bt.W.63.1IU DSP

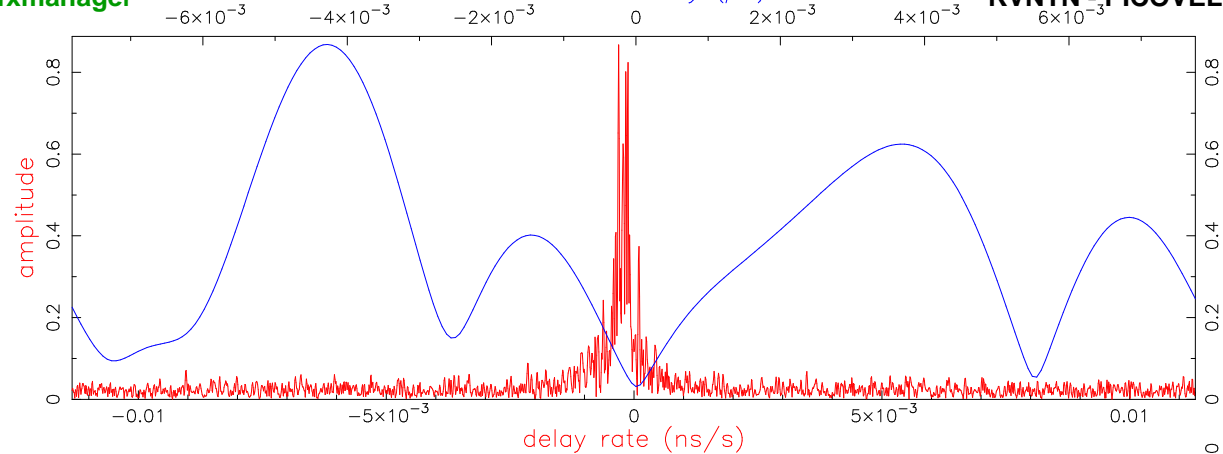
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IU DSP, No0162, tP

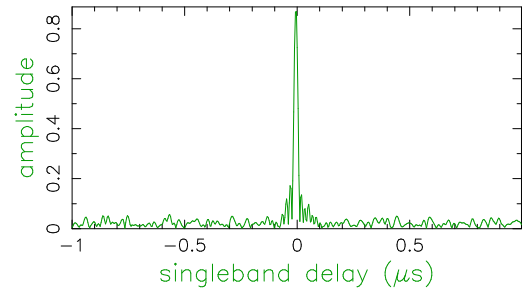
KVNTN - PICOVEL, fgroup W, pol LL

multiband delay (μ s)

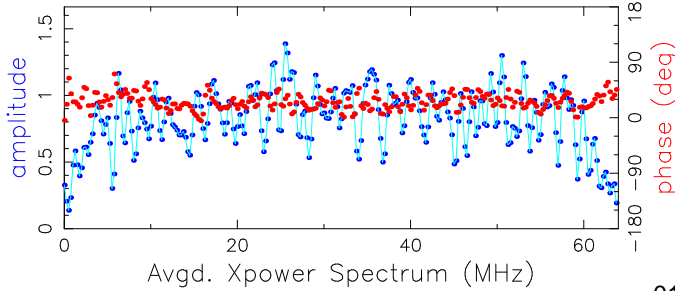


Fringe quality 2

SNR 49.7
 Int time 419.394
 Amp 0.888
 Phase 7.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.005811
 MBD -0.004231
 Fringe rate (Hz)
 -0.027053
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

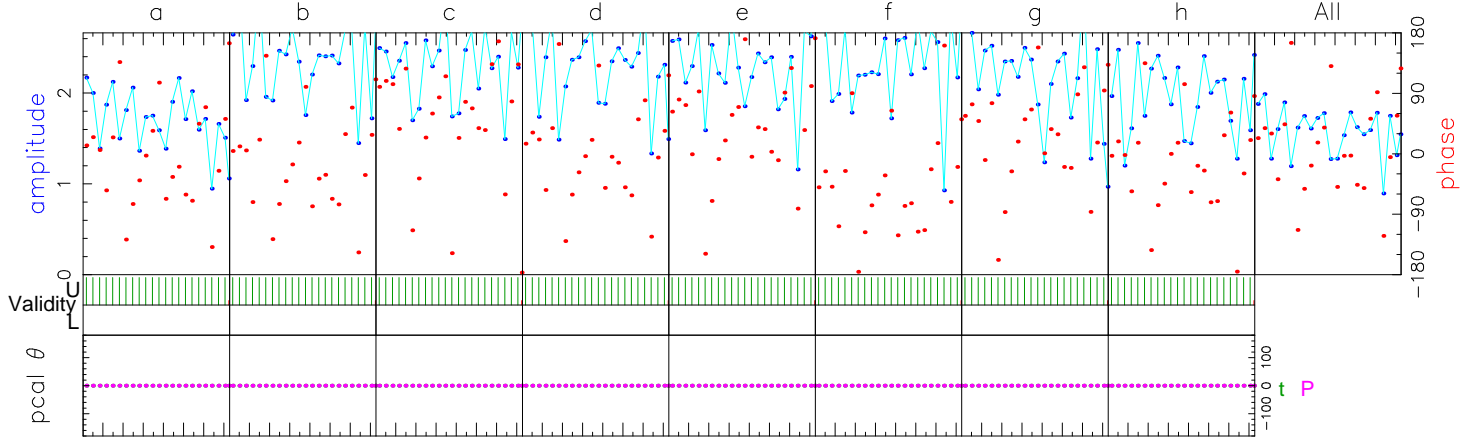


delay rate (ns/s)



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
	-11.2	-18.8	84.4	-1.0	48.8	-62.6	40.6	-15.6	Phase	7.2
	0.9	1.3	1.3	1.3	1.3	1.4	1.1	1.1	Ampl.	1.2
	256.7	255.2	255.2	254.8	254.8	255.0	255.6	255.3	Sbd box	255.5
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	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -2.60210243286E+03 Apriori delay (usec) -2.60209820234E+03 Resid mbdelay (usec) -4.23052E-03 +/- 2.2E-05
 Sband delay (usec) -2.60210401309E+03 Apriori clock (usec) 1.6024265E+00 Resid sbdelay (usec) -5.81075E-03 +/- 1.7E-04
 Phase delay (usec) -2.60209820211E+03 Apriori clockrate (us/s) 5.0000000E-07 Resid phdelay (usec) 2.31890E-07 +/- 7.4E-08
 Delay rate (us/s) -1.19497771153E+00 Apriori rate (us/s) -1.19497739747E+00 Resid rate (us/s) -3.14061E-07 +/- 3.1E-10
 Total phase (deg) -46.7 Apriori accel (us/s/s) 8.64201855096E-06 Resid phase (deg) 7.2 +/- 2.3

RMS Theor. Amplitude 0.888 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 69.0 5.5 Search (2048X32) 0.817 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 83.1 9.6 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 50.5 3.3 Inc. seg. avg. 1.570 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 39.4 5.7 Inc. frq. avg. 1.202 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 321.4 el 38.0 pa 87.5 P: az 40.8 el 46.5 pa -93.3 u,v (fr/asec) 13120.265 701.262 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tP..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tP.W.13.1IU DSP

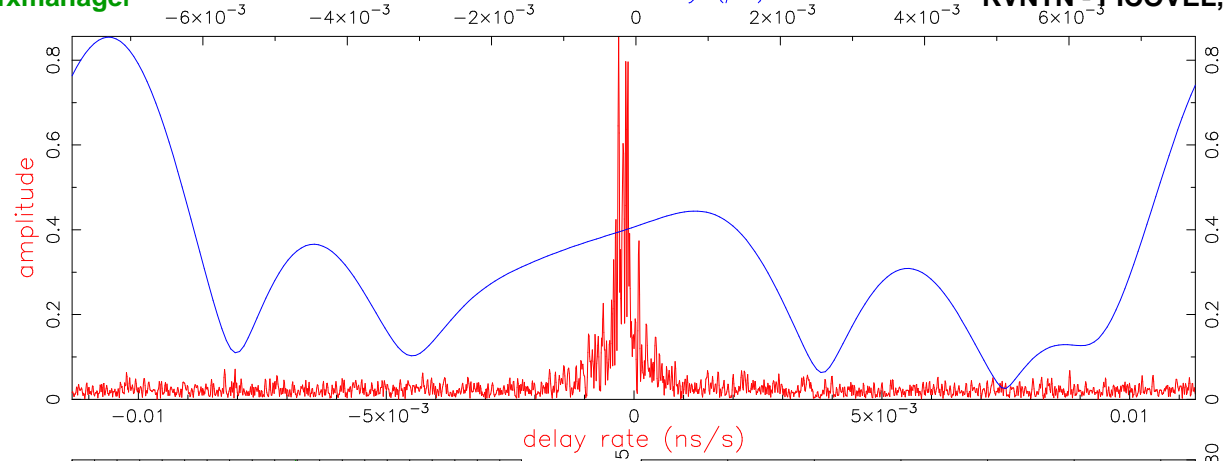
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IU DSP, No0162, tP

KVNTN - PICOVEL, fgroup W, pol RR

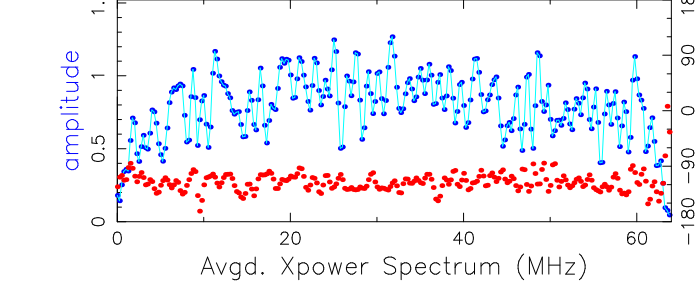
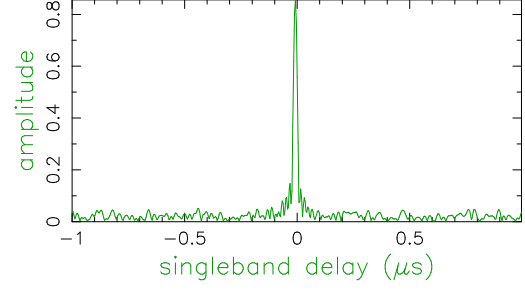
multiband delay (μ s)



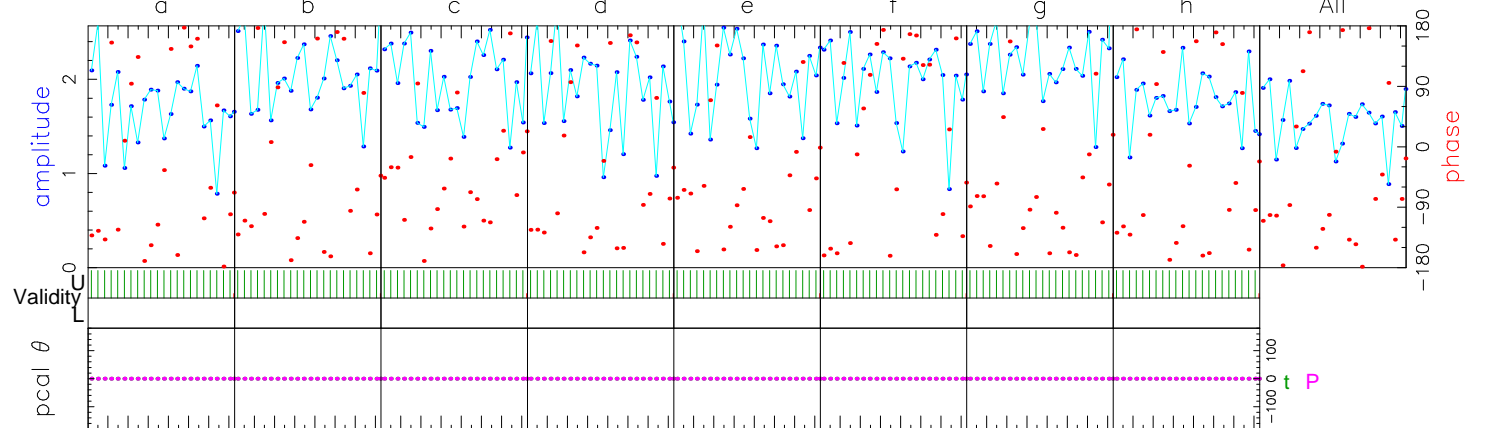
Fringe quality 4

SNR 47.9
 Int time 419.394
 Amp 0.856
 Phase -127.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.008352
 MBD -0.007318
 Fringe rate (Hz)
 -0.027075
 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
	-156.5	-140.6	-62.3	-143.8	-93.7	176.2	-99.1	-147.7	Phase	-127.9
	0.9	1.1	1.1	1.0	1.1	1.1	1.2	0.9	Ampl.	1.1
	256.3	254.8	254.2	253.8	254.3	254.3	254.6	254.9	Sbd box	254.9
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Chan ids	
									Tracks	
Group delay (usec)(sbd)	-2.60210552064E+03		Apriori delay (usec)		-2.60209820234E+03		Resid mbdelay (usec)		-7.31830E-03	+/- 2.3E-05
Sband delay (usec)	-2.60210655384E+03		Apriori clock (usec)		1.6024265E+00		Resid sbdelay (usec)		-8.35150E-03	+/- 1.8E-04
Phase delay (usec)	-2.60209820647E+03		Apriori clockrate (us/s)		5.0000000E-07		Resid phdelay (usec)		-4.12368E-06	+/- 7.7E-08
Delay rate (us/s)	-1.19497771178E+00		Apriori rate (us/s)		-1.19497739747E+00		Resid rate (us/s)		-3.14316E-07	+/- 3.2E-10
Total phase (deg)			Apriori accel (us/s/s)		8.64201855096E-06		Resid phase (deg)		-127.9	+/- 2.4

ph/seg (deg) 69.7 5.7 Search (2048X32) 0.808 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 87.8 10.0 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 42.9 3.4 Inc. seg. avg. 1.550 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 26.3 5.9 Inc. frq. avg. 1.063 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 P: az 40.8 el 46.5 pa -93.3 u,v (fr/asec) 13120.265 701.262 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tP..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tP.W.32.1IU DSP

Mk4/DiFX fourfit 3.21 rev 2937

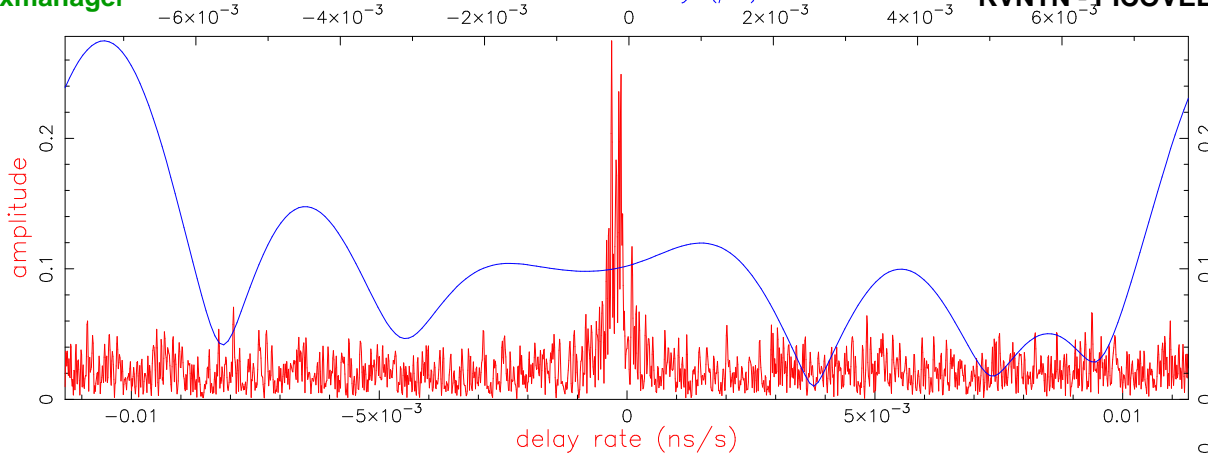
fxmanager

0102+584.1IU DSP, No0162, tP

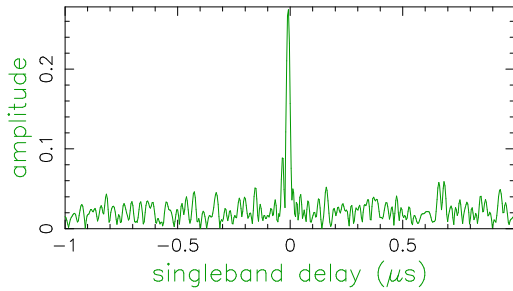
KVNTN - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

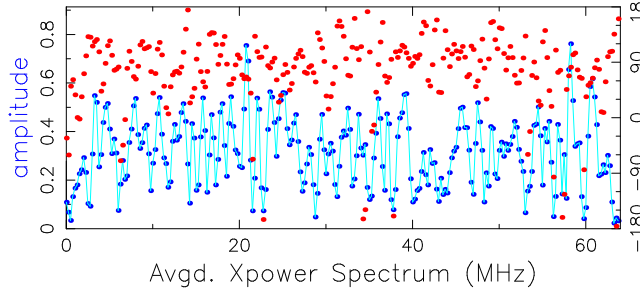
Fringe quality 8



SNR 15.6
 Int time 419.394
 Amp 0.278
 Phase 65.8
 PFD 1.4e-45
 Delays (us)
 SBD -0.009197
 MBD -0.007286
 Fringe rate (Hz)
 -0.027059
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

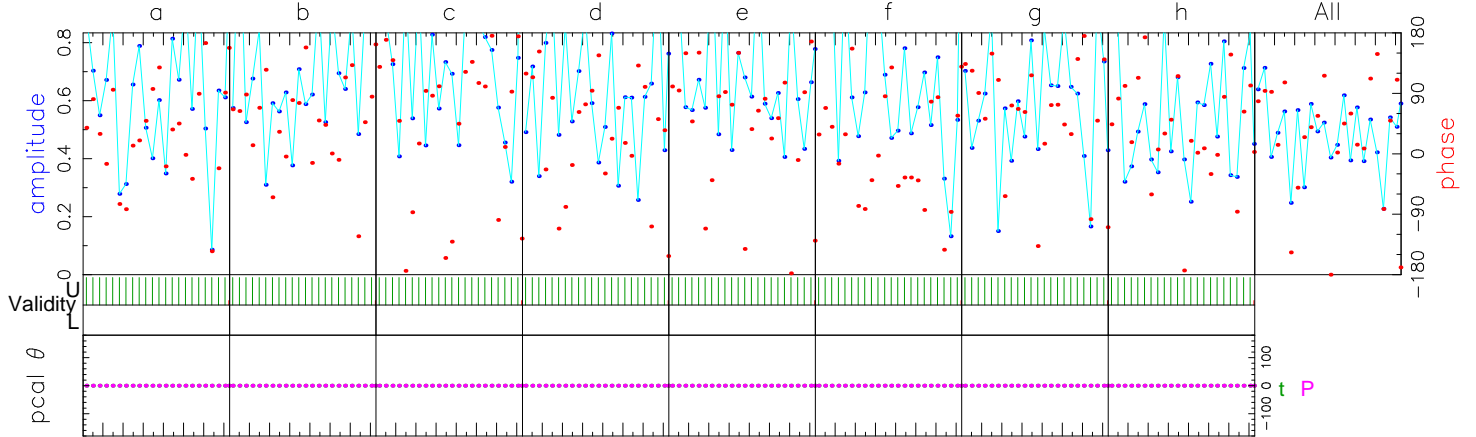


delay rate (ns/s)



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
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	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd)	-2.60210548827E+03	Apriori delay (usec)	-2.60209820234E+03	Resid mbdelay (usec)	-7.28593E-03	+/-	7.0E-05
Sband delay (usec)	-2.60210739984E+03	Apriori clock (usec)	1.6024265E+00	Resid sbdelay (usec)	-9.19750E-03	+/-	5.5E-04
Phase delay (usec)	-2.60209820022E+03	Apriori clockrate (us/s)	5.0000000E-07	Resid phdelay (usec)	2.12036E-06	+/-	2.4E-07
Delay rate (us/s)	-1.19497771159E+00	Apriori rate (us/s)	-1.19497739747E+00	Resid rate (us/s)	-3.14123E-07	+/-	9.8E-10
Total phase (deg)	11.8	Apriori accel (us/s/s)	8.64201855096E-06	Resid phase (deg)	65.8	+/-	7.4

ph/seg (deg)	69.1	Theor.	17.7	Amplitude	0.278 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	85.7	Search (2048X32)	0.259	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	41.2	Inc. seg. avg.	0.461	Inc. frq. avg.	0.329	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	26.2	Inc. frq. avg.	0.329			Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
t: az 321.4 el 38.0 pa 87.5		P: az 40.8 el 46.5 pa -93.3		u,v (fr/asec)	13120.265 701.262	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/tP..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tP.W.50.1IU DSP simultaneous interpolator

Mk4/DiFX fourfit 3.21 rev 2937

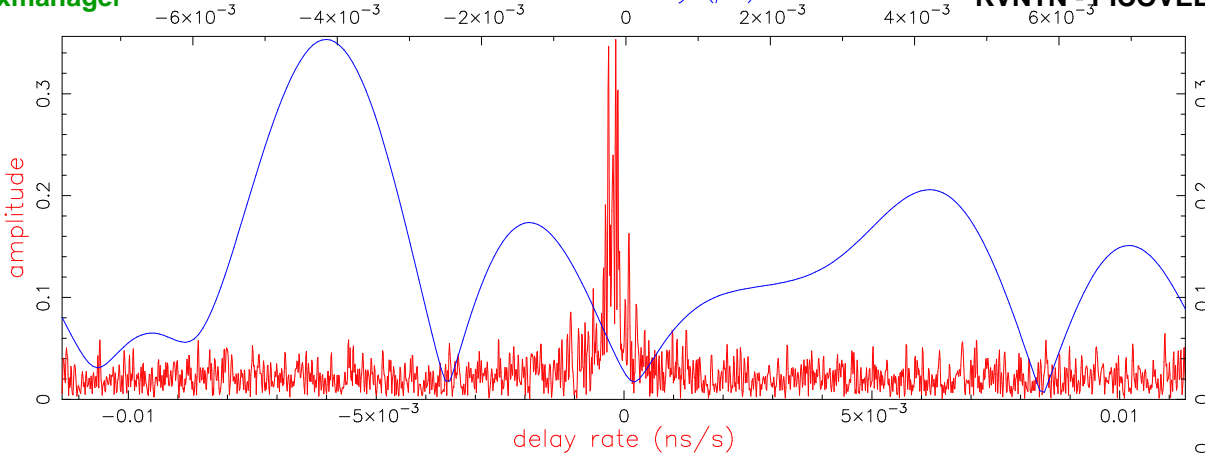
fxmanager

0102+584.1IU DSP, No0162, tP

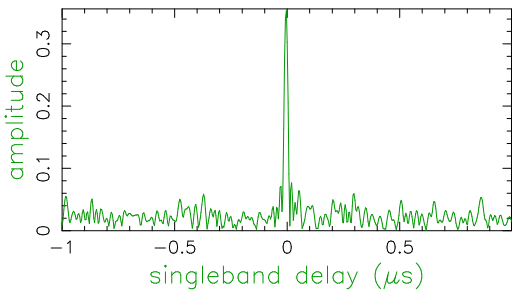
KVNTN - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

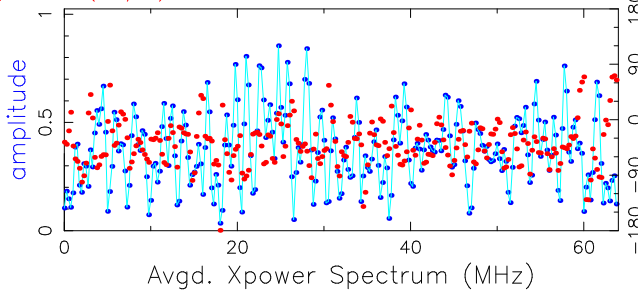
Fringe quality 8



SNR 20.0
 Int time 419.394
 Amp 0.356
 Phase -52.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.005104
 MBD -0.004183
 Fringe rate (Hz)
 -0.014451
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

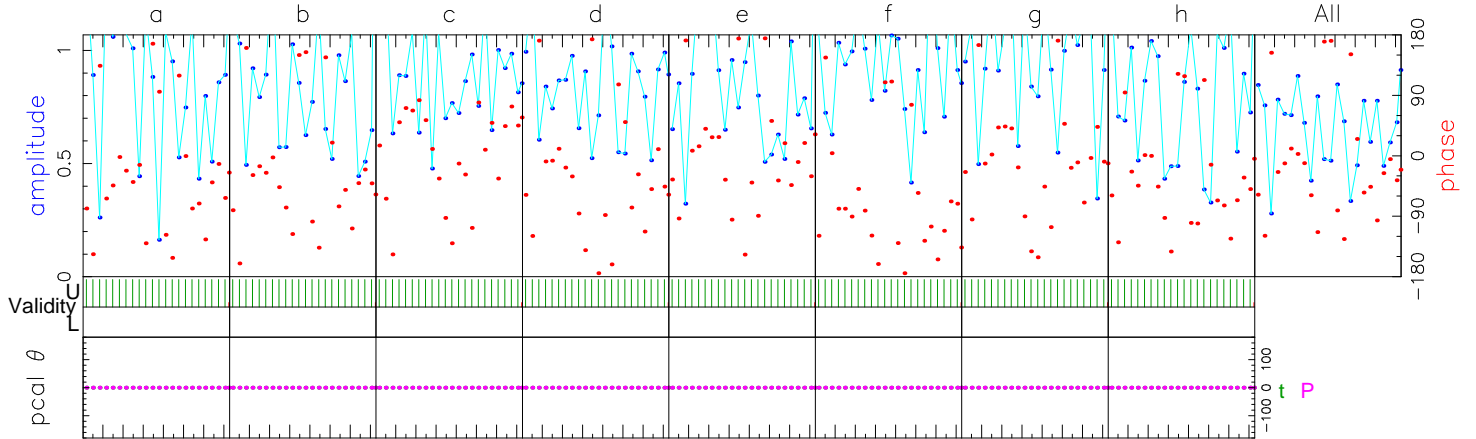


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031700
 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



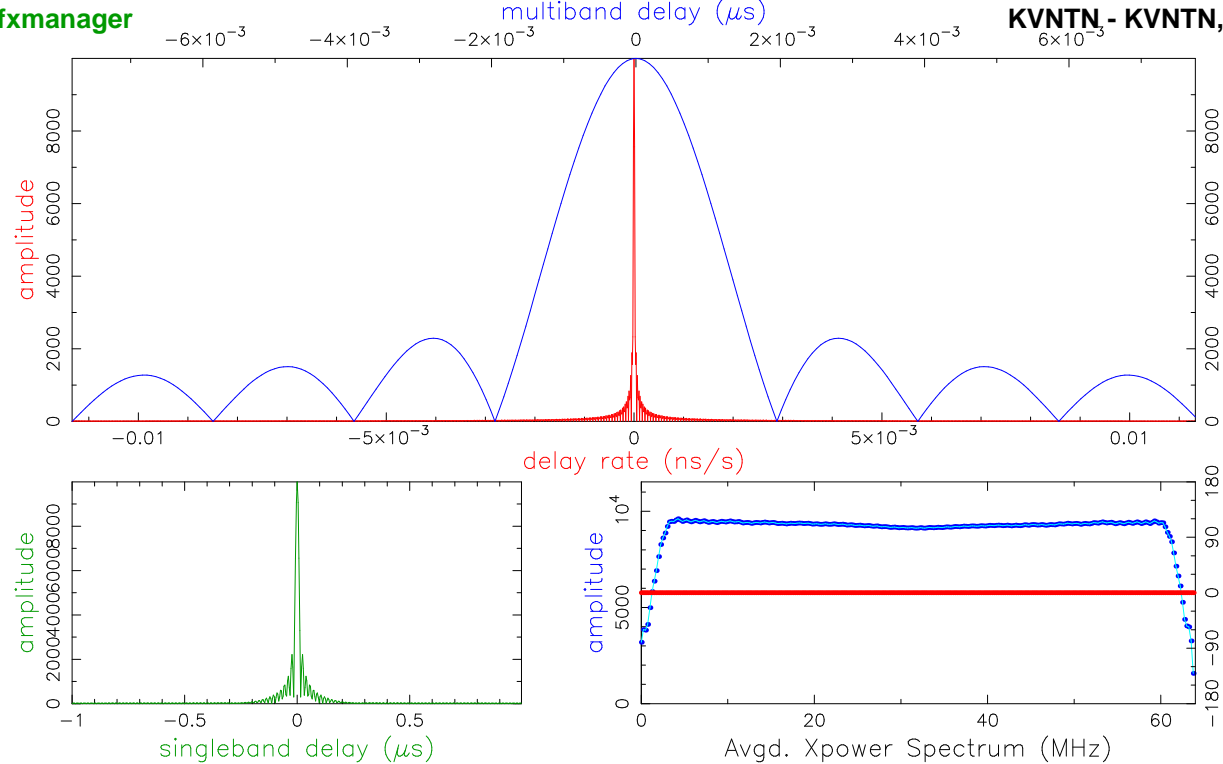
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-71.1	-75.4	16.0	-65.9	-18.0	-106.8	-23.0	-60.9	Phase	-52.2
	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4	Ampl.	0.4
	256.8	255.4	254.9	254.6	254.8	255.5	255.5	256.0	Sbd box	255.7
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
p	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd) -2.60210238492E+03 Apriori delay (usec) -2.60209820234E+03 Resid mbdelay (usec) -4.18258E-03 +/- 5.4E-05
 Sband delay (usec) -2.60210330609E+03 Apriori clock (usec) 1.6024265E+00 Resid sbdelay (usec) -5.10375E-03 +/- 4.3E-04
 Phase delay (usec) -2.60209820403E+03 Apriori clockrate (us/s) 5.0000000E-07 Resid phdelay (usec) -1.68455E-06 +/- 1.9E-07
 Delay rate (us/s) -1.19497756523E+00 Apriori rate (us/s) -1.19497739747E+00 Resid rate (us/s) -1.67766E-07 +/- 7.6E-10
 Total phase (deg) -106.2 Apriori accel (us/s/s) 8.64201855096E-06 Resid phase (deg) -52.2 +/- 5.7

RMS Theor. Amplitude 0.356 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 74.5 13.8 Search (2048X32) 0.340 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 94.3 24.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 42.5 8.1 Inc. seg. avg. 0.629 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 26.9 14.2 Inc. frq. avg. 0.437 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

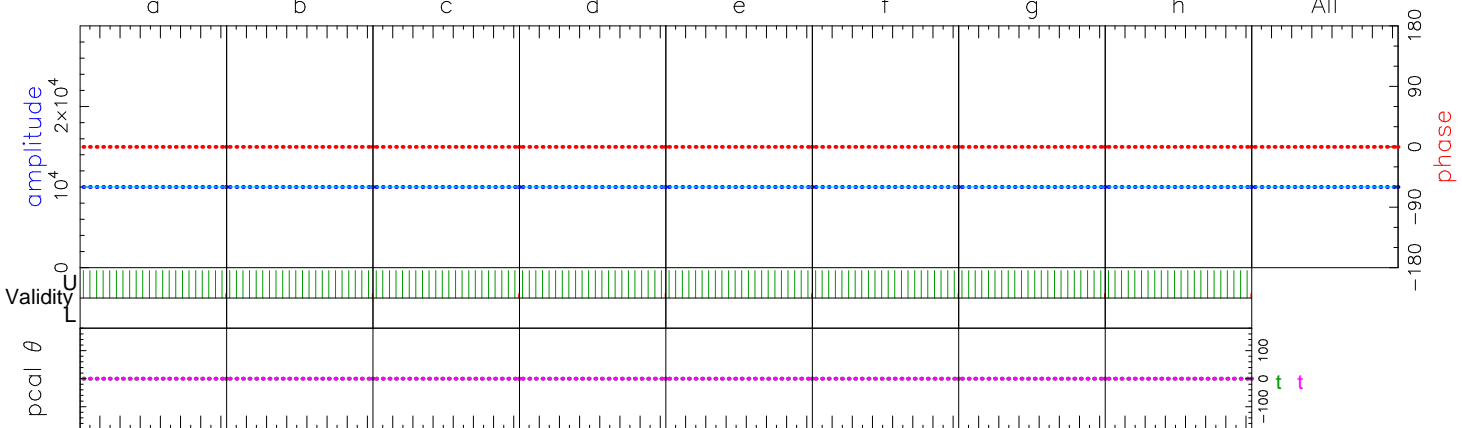
t: az 321.4 el 38.0 pa 87.5 P: az 40.8 el 46.5 pa -93.3 u,v (fr/asec) 13120.265 701.262 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tP..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tP.W.70.1IU DSP



Fringe quality 9
SNR 560315.7
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
2021:029:031651
2020:247:085004
RA & Dec (J2000) 01h02m45.762375s +58°24'11.136621"

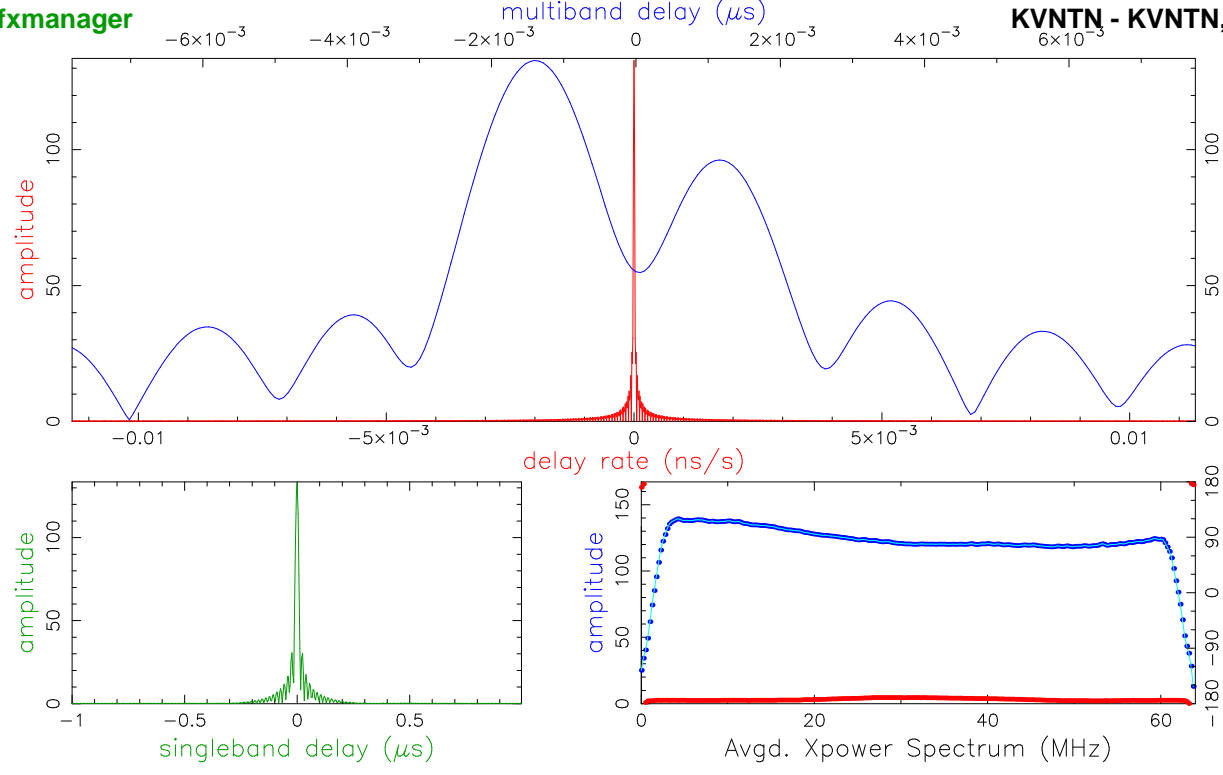
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	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		
t:t	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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

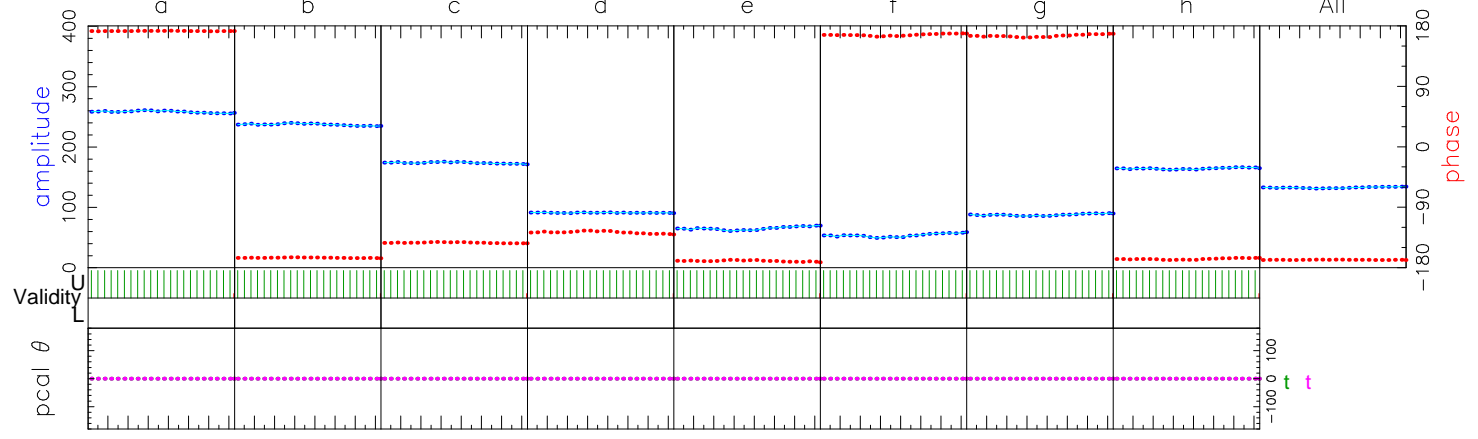
Group delay (usec)(sbd)	0.000000000000E+00	Apriori delay (usec)	0.000000000000E+00	Resid mbdelay (usec)	0.000000E+00	+/-	1.9E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.5E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate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

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



Fringe quality 5
SNR 7486.6
Int time 419.827
Amp 133.615
Phase -168.2
PFD 0.0e+00
Delays (us)
SBD -0.000979
MBD -0.001401
Fringe rate (Hz)
-0.000003
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
2021:029:031655
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

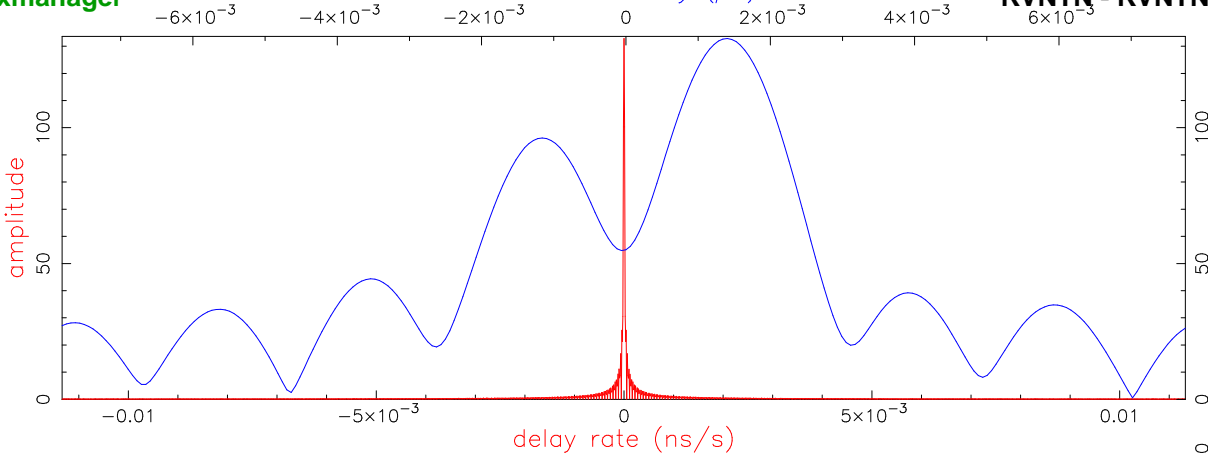


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-1.40065625000E-03								Resid mbdelay (usec)	-1.40066E-03 +/- 1.4E-07
Sband delay (usec)	-9.78500000000E-04								Resid sbdelay (usec)	-9.78500E-04 +/- 1.2E-06
Phase delay (usec)	-5.42327815932E-06								Resid phdelay (usec)	-5.42328E-06 +/- 4.9E-10
Delay rate (us/s)	-3.04679776421E-11								Resid rate (us/s)	-3.04680E-11 +/- 2.0E-12
Total phase (deg)			-168.2						Resid phase (deg)	-168.2 +/- 0.0

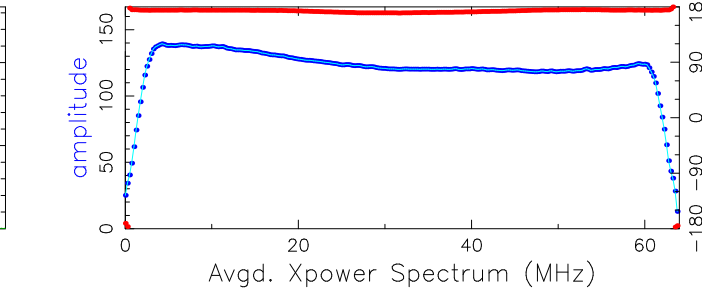
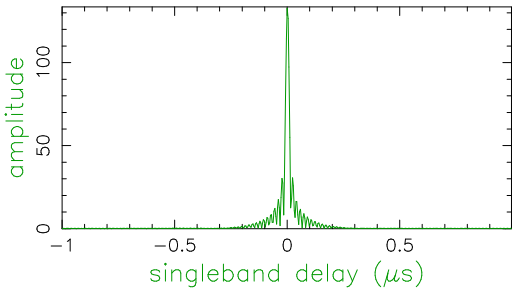
ph/seg (deg) 0.1 0.0 Theor. Amplitude 133.615 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 0.9 0.1 Search (2048X32) 132.498 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 26.1 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 55.4 0.0 Inc. seg. avg. 132.807 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
t: az 321.4 el 38.0 pa 87.5 t: az 321.4 el 38.0 pa 87.5 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/tt.1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tt.W.42.1IU DSP simultaneous interpolator

multiband delay (μ s)

Fringe quality 5

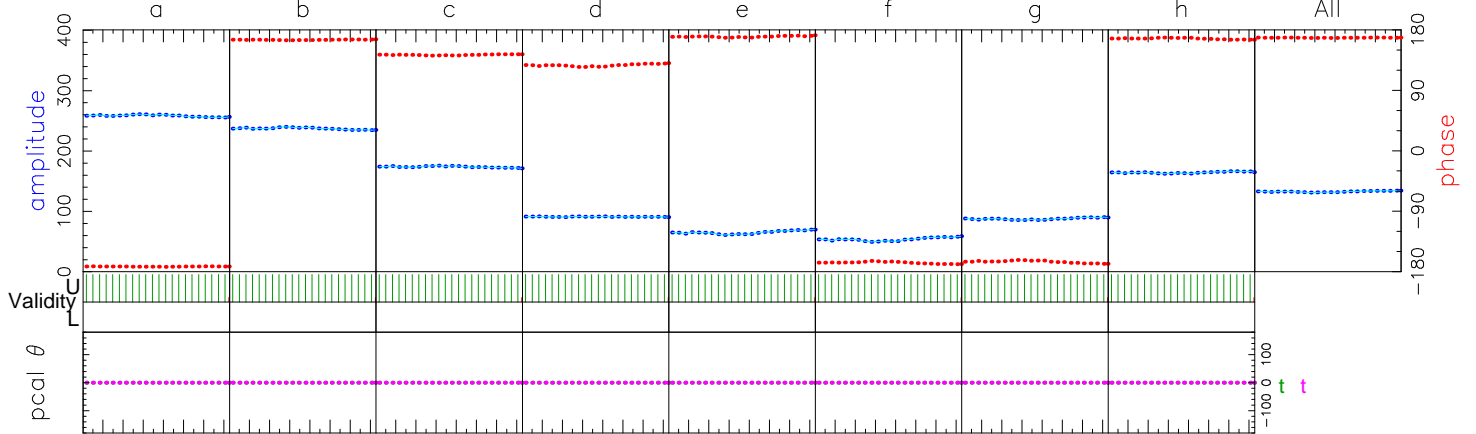


SNR 7486.6
Int time 419.827
Amp 133.615
Phase 168.2
PFD 0.0e+00
Delays (us)
SBD 0.000979
MBD 0.001401
Fringe rate (Hz)
0.000003
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031658
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
	-172.3	165.1	142.7	127.3	169.9	-166.5	-165.1	166.9	Phase	168.2
	258.4	237.3	173.8	91.1	65.1	53.7	87.6	164.4	Ampl.	141.4
	257.2	257.3	257.1	257.4	257.2	257.8	257.1	257.3	Sbd box	257.3
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:t	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:t	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	
t	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
t									Tracks	

Group delay (usec)(sbd)	1.40065625000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.40066E-03	+/-	1.4E-07
Sband delay (usec)	9.78500000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	9.78500E-04	+/-	1.2E-06
Phase delay (usec)	5.42327815921E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	5.42328E-06	+/-	4.9E-10
Delay rate (us/s)	3.04679776421E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	3.04680E-11	+/-	2.0E-12
Total phase (deg)	168.2	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	168.2	+/-	0.0

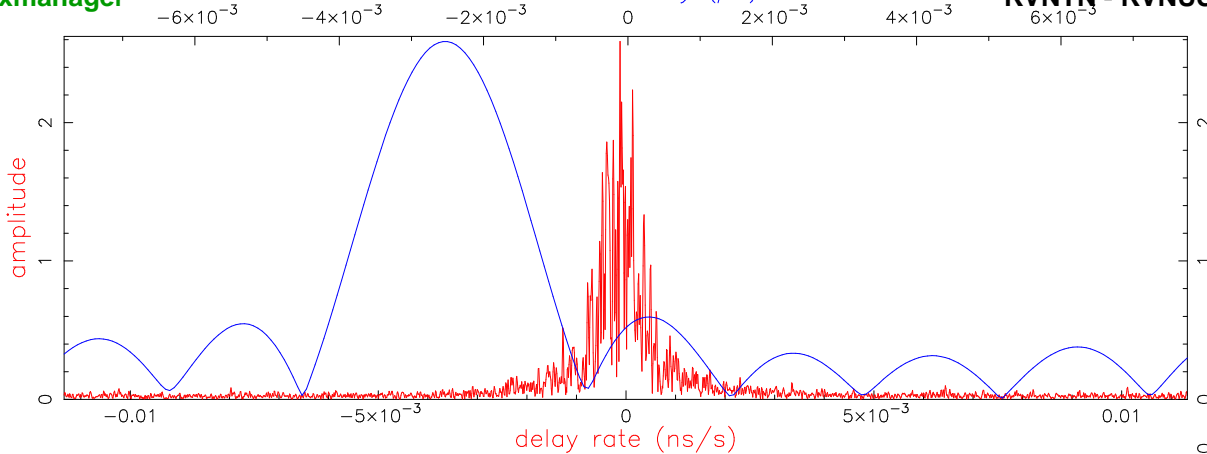
ph/seg (deg)	0.1	RMS	0.0	Theor.	133.615 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	0.9	0.1	0.0	Search (2048X32)	132.498	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	26.1	0.0	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	55.4	0.0	0.0	Inc. seg. avg.	132.807	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	141.438	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

t: az 321.4 el 38.0 pa 87.5 t: az 321.4 el 38.0 pa 87.5 u, v (fr/asec) 0.000 0.000 simultaneous interpolator

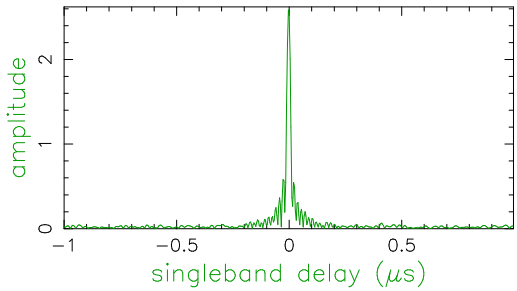
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tt.1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tt.W.61.1IU DSP

multiband delay (μ s)

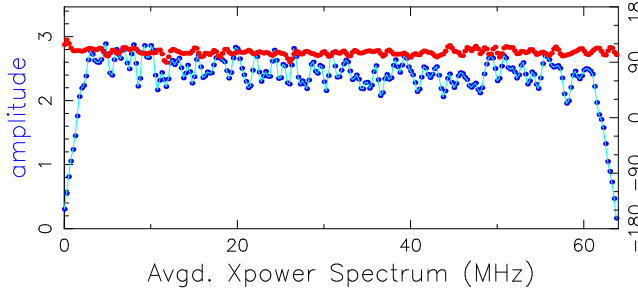
Fringe quality 5



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

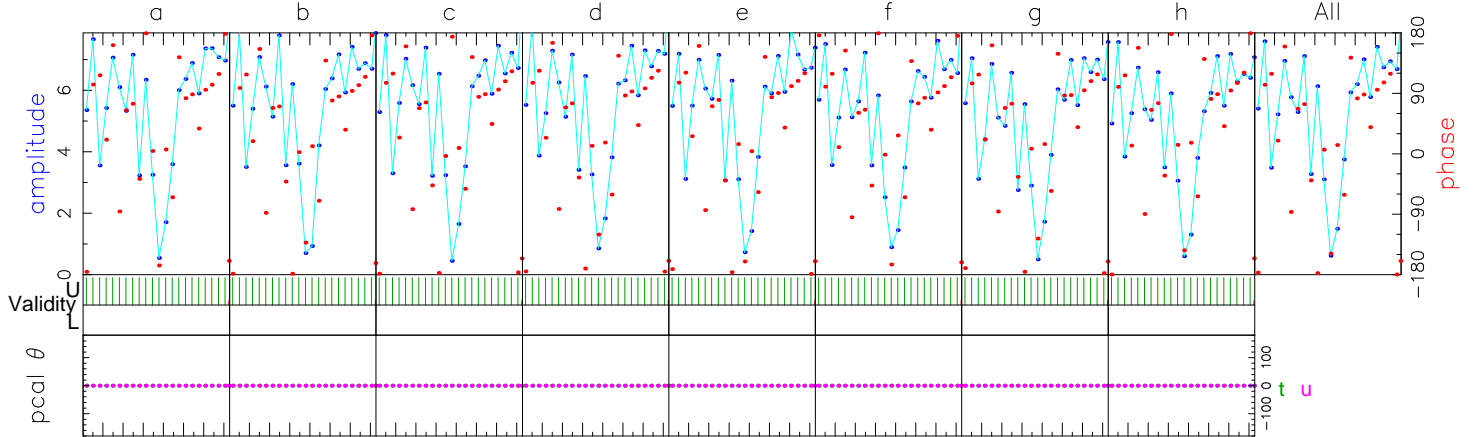


delay rate (ns/s)



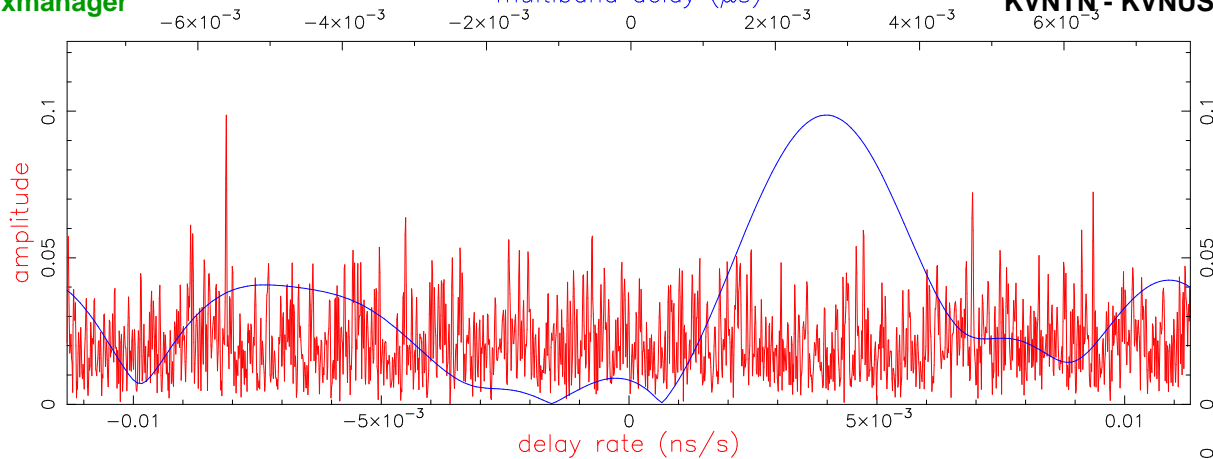
Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031649
 2020:247:085004
 RA & Dec (J2000)
 01h02m45.762375s
 +58°24'11.136621"

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



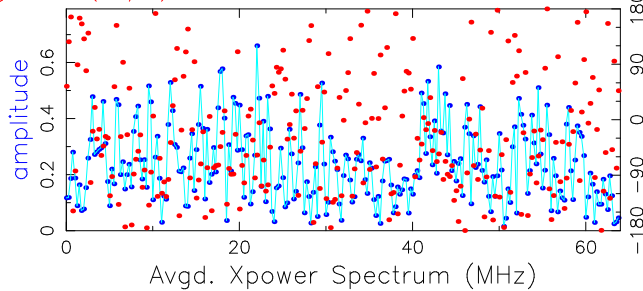
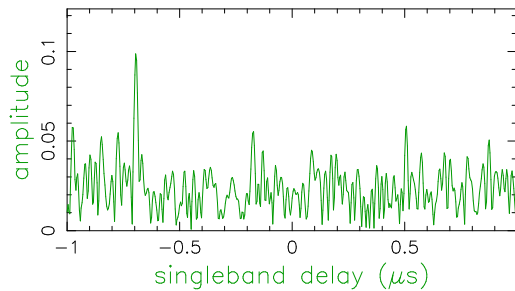
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	107.0	107.0
u	1000	1000	1000	1000	1000	1000	1000	1000	2.6	2.6
t:u	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	256.4	256.4
tu	0:0	0:0	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	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5				
ph/seg (deg)	81.2	1.9	Search (2048X32)	2.533	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
amp/seg (%)	127.6	3.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
ph/frq (deg)	3.5	1.1	Inc. seg. avg.	5.377	Sample rate(MISamp/s): 128		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	2.7	1.9	Inc. frq. avg.	2.590	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00
t: az 321.4 el 38.0 pa 87.5			u: az 320.5 el 38.3 pa 82.0							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.14.1IU DSP

multiband delay (μ s)



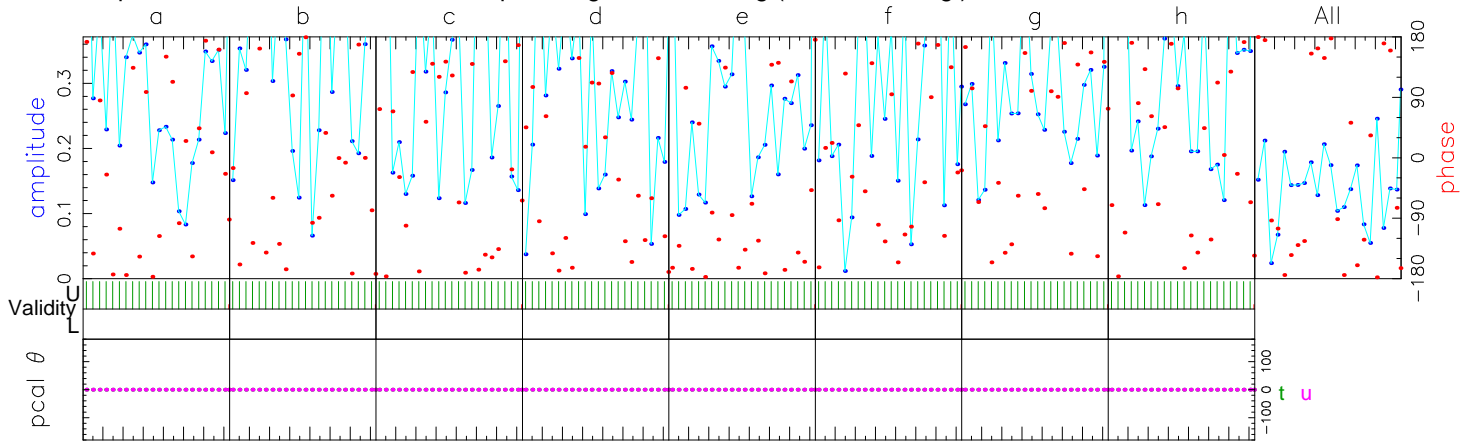
Fringe quality 0

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
169.5	-122.8	168.4	-151.0	-156.0	-166.6	164.1	-172.8		Phase	-170.1
0.2	0.1	0.2	0.1	0.2	0.0	0.1	0.1		Ampl.	0.1
331.7	229.5	354.9	8.1	119.1	411.0	479.1	189.7		Sbd box	79.3
U/L 820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		APs used	
t 1000	1000	1000	1000	1000	1000	1000	1000		PC freqs	
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	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
u	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.87098206879E+01		Apriori delay (usec)	-8.80094307731E+01		Resid mbdelay (usec)	2.73509E-03		+/-	2.0E-04
Sband delay (usec)	-8.87037130231E+01		Apriori clock (usec)	-1.1920629E+00		Resid sbdelay (usec)	-6.94282E-01		+/-	1.5E-03
Phase delay (usec)	-8.80094362600E+01		Apriori clockrate (us/s)	-2.9999999E-07		Resid phdelay (usec)	-5.48686E-06		+/-	6.6E-07
Delay rate (us/s)	-7.44101038707E-03		Apriori rate (us/s)	-7.43287381090E-03		Resid rate (us/s)	-8.13658E-06		+/-	2.7E-09
Total phase (deg)		-302.2	Apriori accel (us/s/s)	-2.65942745568E-06		Resid phase (deg)	-170.1		+/-	20.6

RMS Theor. Amplitude 0.124 +/- 0.022
 ph/seg (deg) 60.6 49.4 Search (2048X32) 0.098
 amp/seg (%) 68.5 86.3 Interp. 0.000
 ph/frq (deg) 27.0 29.2 Inc. seg. avg. 0.127
 amp/frq (%) 45.9 50.9 Inc. frq. avg. 0.119

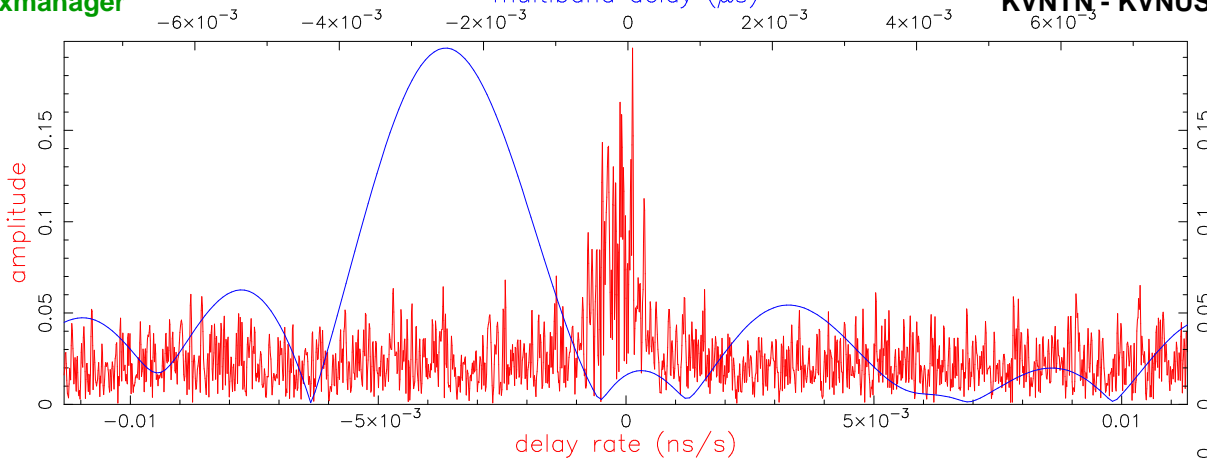
Group delay (usec)(sbd) -8.87098206879E+01 Apriori delay (usec) -8.80094307731E+01 Resid mbdelay (usec) 2.73509E-03 +/- 2.0E-04
 Sband delay (usec) -8.87037130231E+01 Apriori clock (usec) -1.1920629E+00 Resid sbdelay (usec) -6.94282E-01 +/- 1.5E-03
 Phase delay (usec) -8.80094362600E+01 Apriori clockrate (us/s) -2.9999999E-07 Resid phdelay (usec) -5.48686E-06 +/- 6.6E-07
 Delay rate (us/s) -7.44101038707E-03 Apriori rate (us/s) -7.43287381090E-03 Resid rate (us/s) -8.13658E-06 +/- 2.7E-09
 Total phase (deg) -302.2 Apriori accel (us/s/s) -2.65942745568E-06 Resid phase (deg) -170.1 +/- 20.6

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 Sample rate(MSamp/s): 128 dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

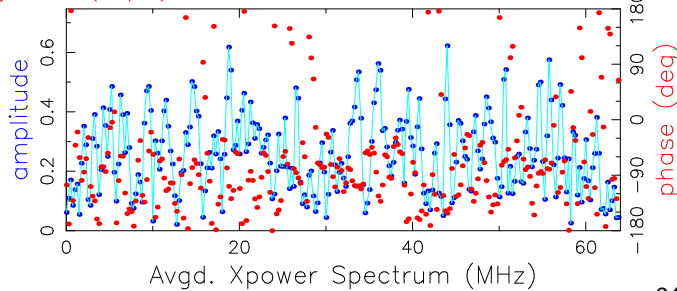
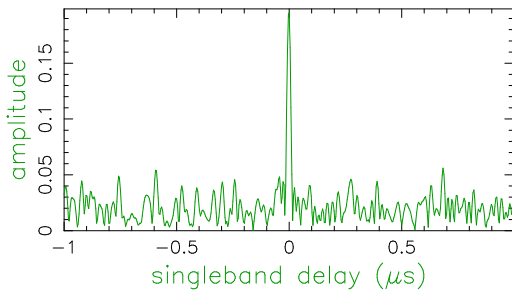
t: az 321.4 el 38.0 pa 87.5 u: az 320.5 el 38.3 pa 82.0 u,v (fr/asec) 75.950 -492.071 simultaneous interpolator

multiband delay (μ s)

Fringe quality 9

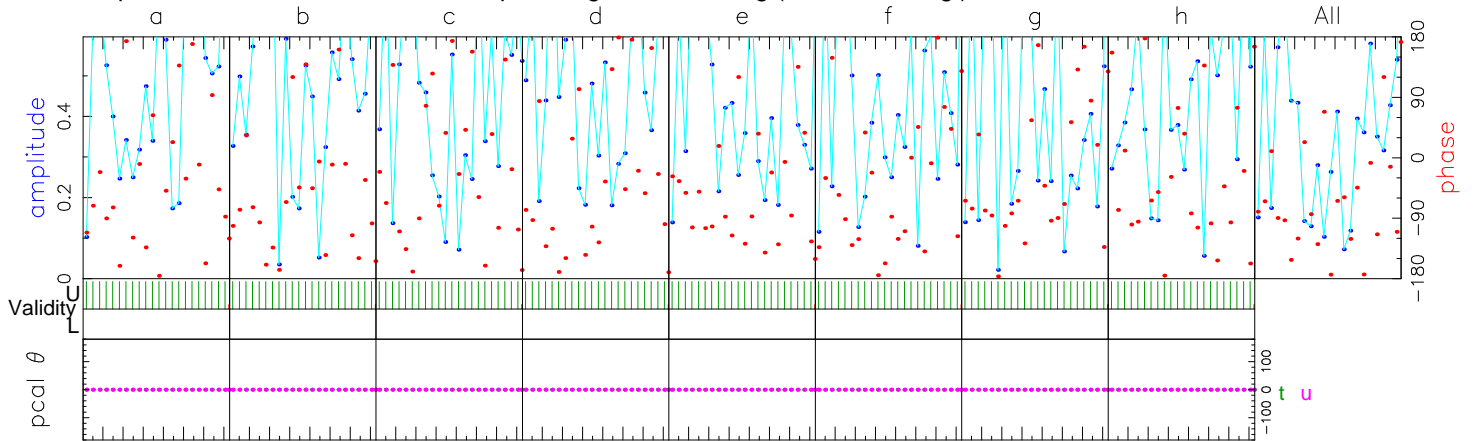


SNR 11.1
Int time 419.827
Amp 0.199
Phase -89.7
PFD 4.1e-20
Delays (us)
SBD -0.001809
MBD -0.002526
Fringe rate (Hz)
0.011303
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



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

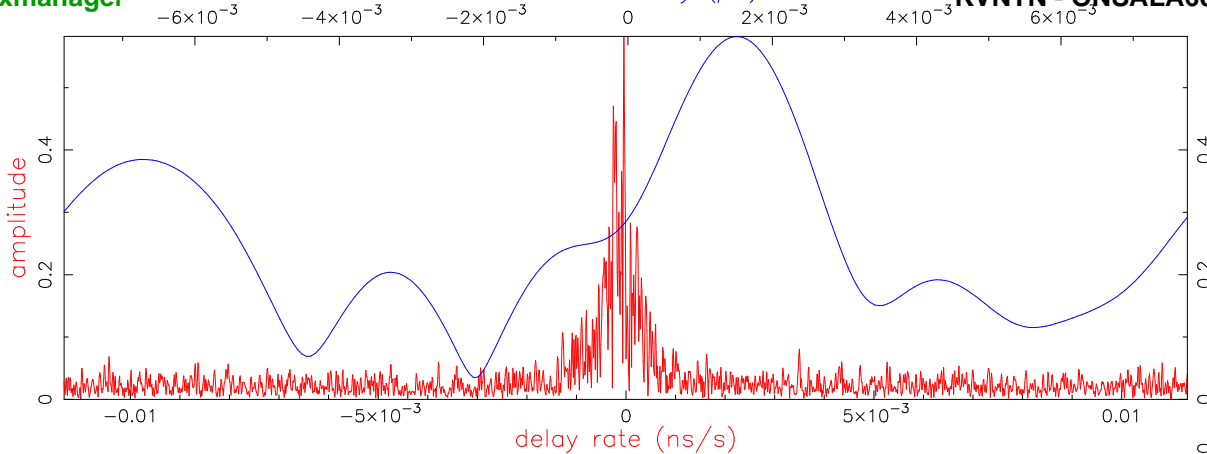
fxmanager

0102+584.1IU DSP, No0162, tX

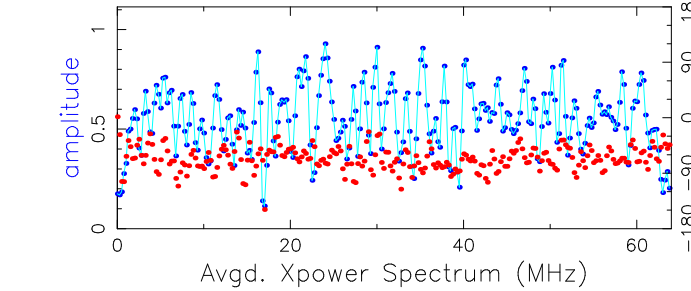
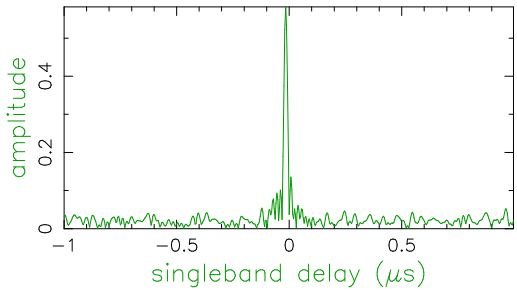
KVNTN - ONSALA60, fgroup W, pol LL

multiband delay (μ s)

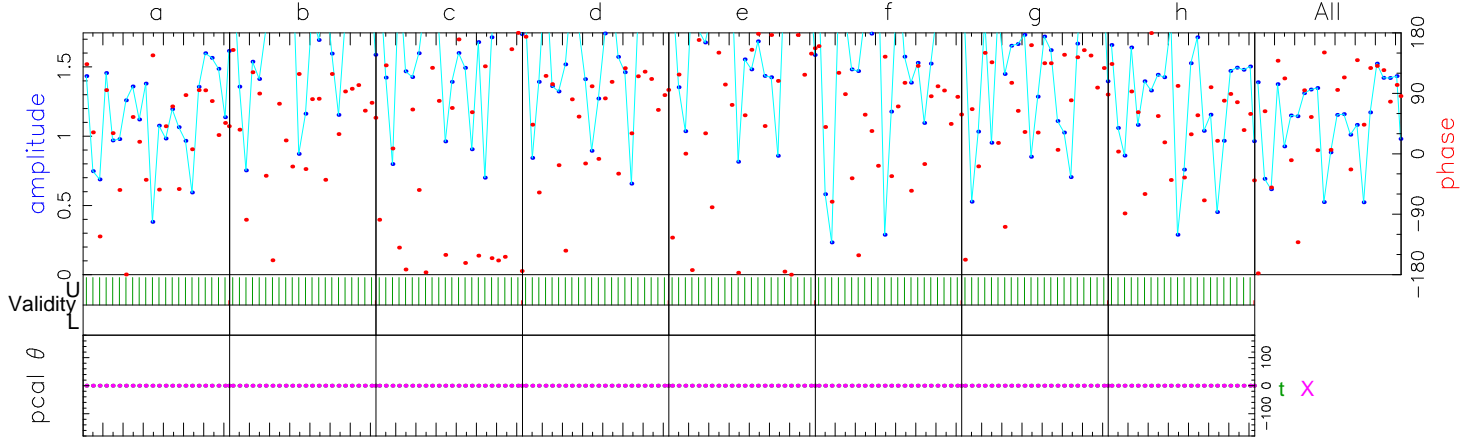
Fringe quality 3



SNR 32.6
 Int time 419.770
 Amp 0.582
 Phase 98.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.015454
 MBD 0.001514
 Fringe rate (Hz)
 -0.003777
 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"



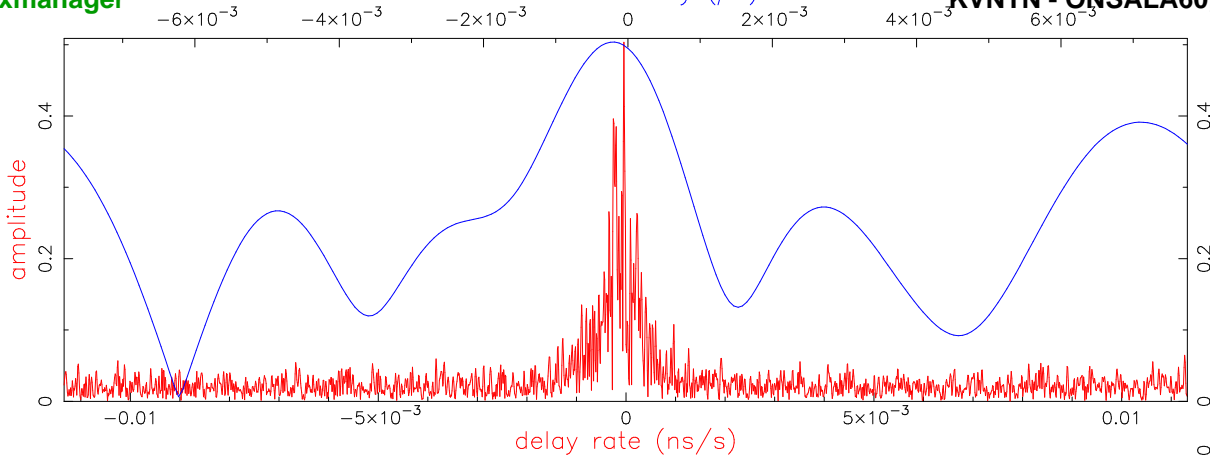
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec)(sbd)	-6.73288388460E+03									
Sband delay (usec)	-6.73288522713E+03									
Phase delay (usec)	-6.73286977021E+03									
Delay rate (us/s)	-9.42211387569E-01									
Total phase (deg)			-2.1							
Apriori delay (usec)									1.51377E-03	+/- 3.3E-05
Apriori clock (usec)									-1.54538E-02	+/- 2.6E-04
Apriori clockrate (us/s)									3.16493E-06	+/- 1.1E-07
Apriori rate (us/s)									-4.38505E-08	+/- 4.7E-10
Apriori accel (us/s/s)									98.1	+/- 3.5
Resid mbdelay (usec)										
Resid sbdelay (usec)										
Resid phdelay (usec)										
Resid rate (us/s)										
Resid phase (deg)										
Pcal mode: MANUAL, MANUAL										
Pcal rate: 0.000E+00, 0.000E+00 (us/s)										
Bits/sample: 2x2										
Sample rate(MISamp/s): 128										
Data rate(Mb/s): 2048										
PC period (AP's) 5, 5										
sb window (us)									-1.000	1.000
SampCntNorm: enabled									-0.008	0.008
mb window (us)									-0.011	0.011
dr window (ns/s)									0.00	0.00
ion window (TEC)										
nlags: 256										
t_cohere infinite										

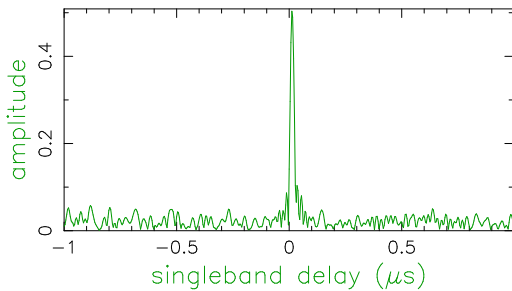
ph/seg (deg) 68.9 8.4 Search (2048X32) 0.580 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 105.3 14.7 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 51.0 5.0 Inc. seg. avg. 1.105 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 42.0 8.7 Inc. frq. avg. 0.791 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 X: az 68.4 el 66.9 pa -73.9 u,v (fr/asec) 10347.382 -548.886 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tX..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tX.W.11.1IU DSP

multiband delay (μ s)

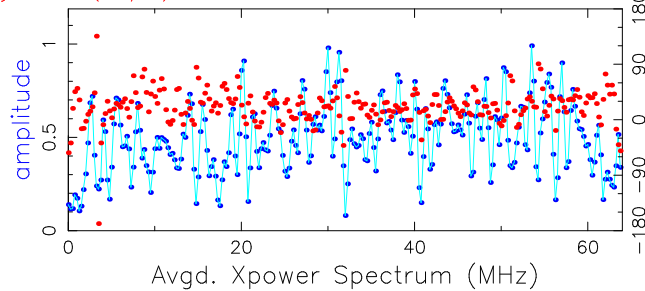


Fringe quality 3

SNR 28.5
Int time 419.770
Amp 0.509
Phase 174.2
PFD 0.0e+00
Delays (us)
SBD 0.013068
MBD -0.000169
Fringe rate (Hz)
-0.003800
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

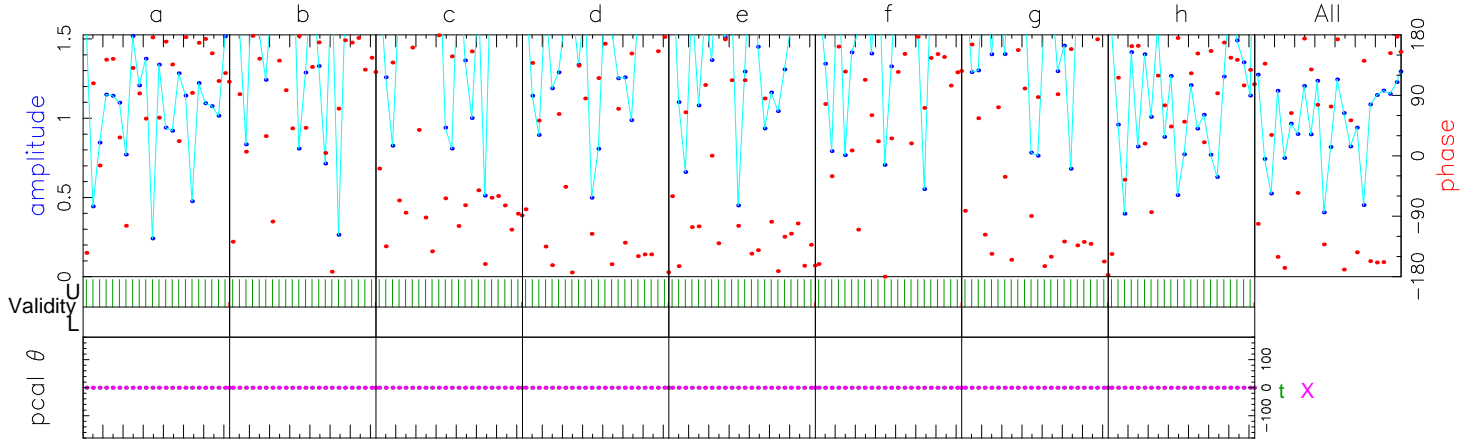


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031654
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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:X	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		
X	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
X	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-6.73285431735E+03				-6.73286977338E+03					
Sband delay (usec)	-6.73285670563E+03				-4.6978920E+01					
Phase delay (usec)	-6.73286976776E+03				-4.2800003E-07					
Delay rate (us/s)	-9.42211387833E-01				-9.42211343719E-01					
Total phase (deg)			73.9		7.28503360023E-06					
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			MANUAL					
Pcal rate:	0.000E+00	0.000E+00			0.000E+00					
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) 69.0 9.6 Search (2048X32) 0.494 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 103.0 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) 57.0 5.7 Inc. seg. avg. 0.951 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 55.6 9.9 Inc. frq. avg. 0.764 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 X: az 68.4 el 66.9 pa -73.9 u,v (fr/asec) 10347.382 -548.886 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tX..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tX.W.41.1IU DSP

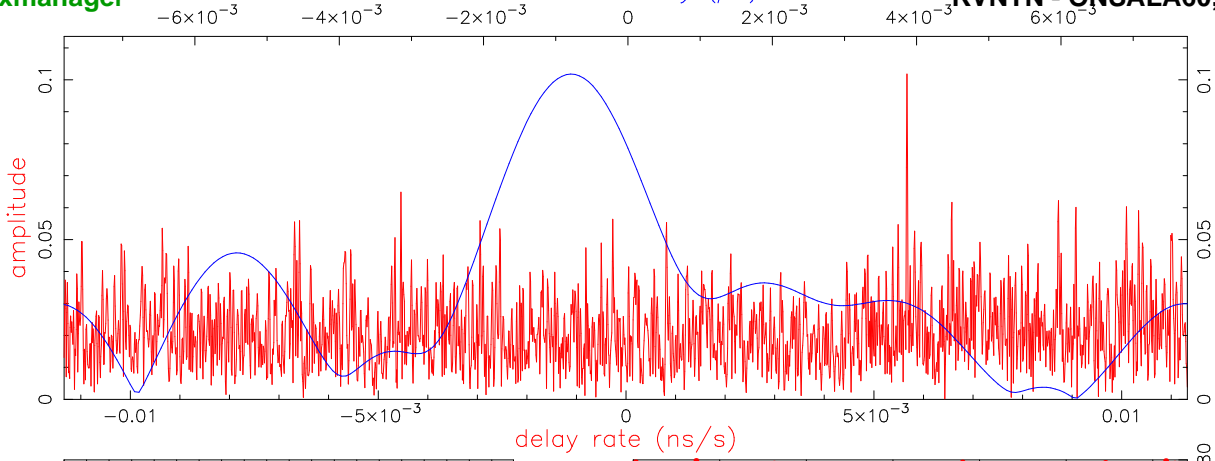
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

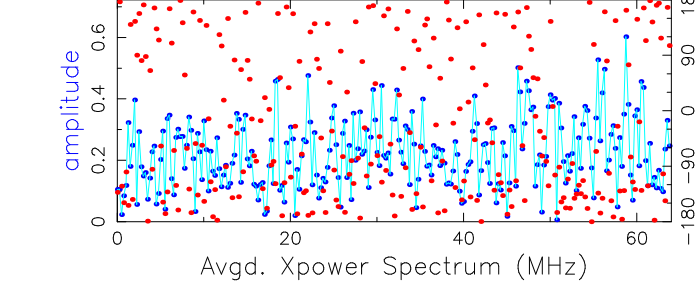
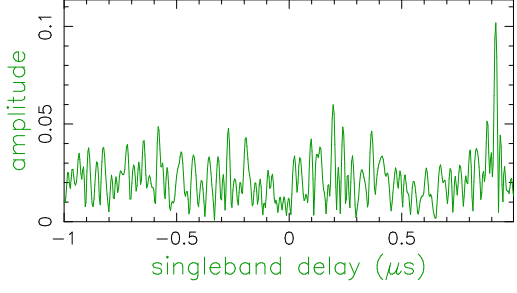
0102+584.1IU DSP, No0162, tX

KVNTN - ONSALA60, fgroup W, pol LR

multiband delay (μ s)

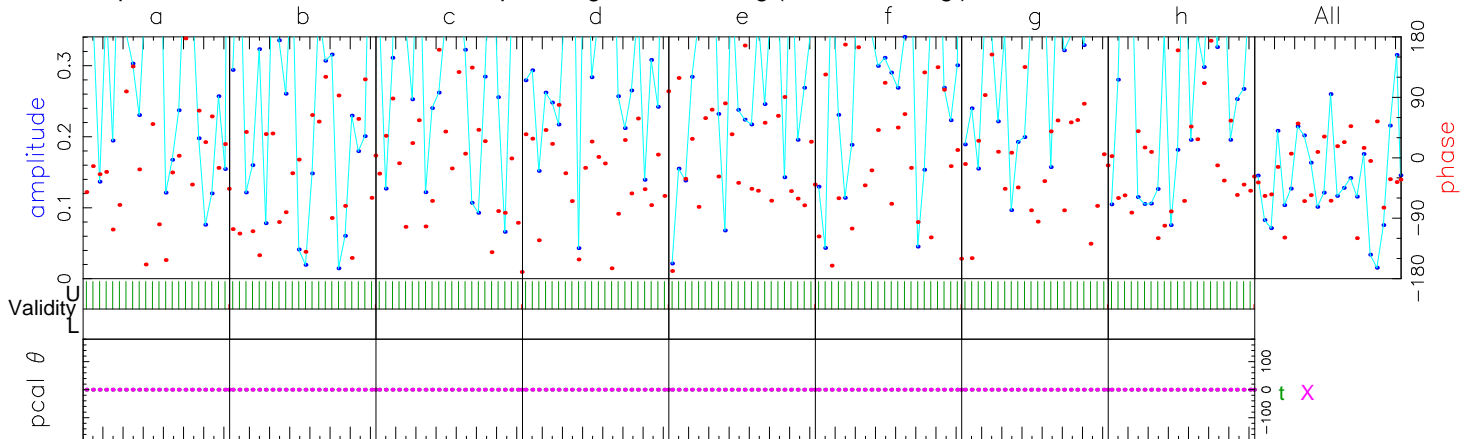


Fringe quality 0
 SNR 5.7
 Int time 419.770
 Amp 0.114
 Phase -23.1
 PFD 9.2e-01
 Delays (us)
 SBD 0.917242
 MBD -0.000802
 Fringe rate (Hz) 0.488989
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Yr:day 16383
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031658
 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



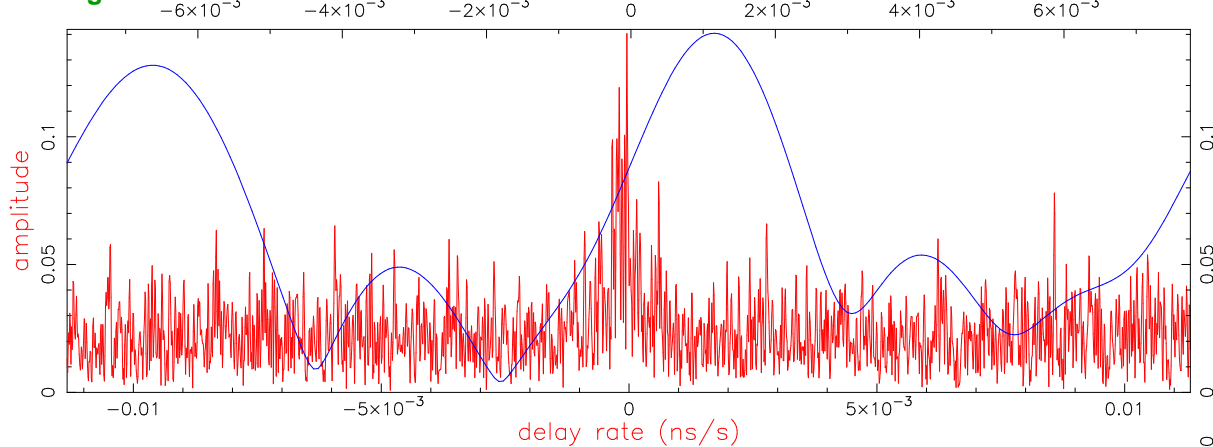
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000		
X	1000	1000	1000	1000	1000	1000	1000	1000		
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0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

Group delay (usec)(sbd)	-6.73194870060E+03	Apriori delay (usec)		-6.73286977338E+03	Resid mbdelay (usec)		-8.02221E-04	+/-	1.9E-04
Sband delay (usec)	-6.73195253113E+03	Apriori clock (usec)		-4.6978920E+01	Resid sbdelay (usec)		9.17242E-01	+/-	1.5E-03
Phase delay (usec)	-6.73286977412E+03	Apriori clockrate (us/s)		-4.2800003E-07	Resid phdelay (usec)		-7.44892E-07	+/-	6.5E-07
Delay rate (us/s)	-9.42205667045E-01	Apriori rate (us/s)		-9.42211343719E-01	Resid rate (us/s)		5.67667E-06	+/-	2.7E-09
Total phase (deg)	-123.4	Apriori accel (us/s/s)		7.28503360023E-06	Resid phase (deg)		-23.1	+/-	20.0

ph/seg (deg)	49.8	Theor.	48.0	Amplitude	0.114 +/- 0.020	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5		
amp/seg (%)	79.4		83.7	Search (2048X32)	0.099	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000 1.000		
ph/frq (deg)	26.4		28.3	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008	
amp/frq (%)	45.8		49.4	Inc. seg. avg.	0.117	Sample rate (MSamp/s):	128	dr window (ns/s)	-0.011 0.011		
				Inc. frq. avg.	0.107	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00 0.00

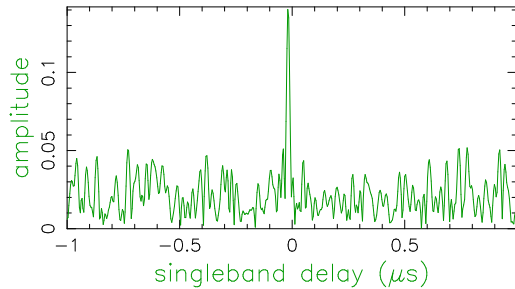
t: az 321.4 el 38.0 pa 87.5 X: az 68.4 el 66.9 pa -73.9 u,v (fr/asec) 10347.382 -548.886 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tX..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tX.W.60.1IU DSP

multiband delay (μs)

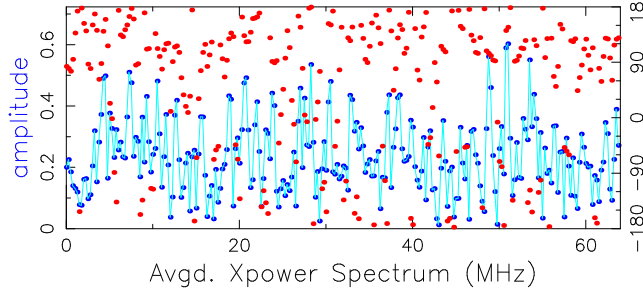


Fringe quality 9

SNR 8.0
Int time 419.770
Amp 0.142
Phase -90.6
PFD 6.1e-07
Delays (us)
SBD -0.018267
MBD 0.001209
Fringe rate (Hz)
-0.003943
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

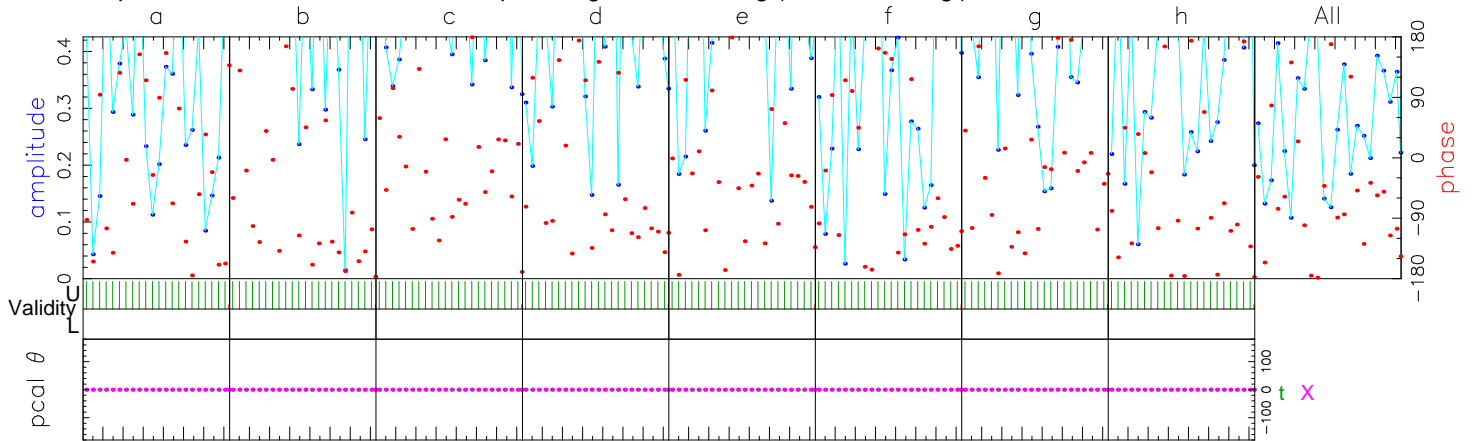


delay rate (ns/s)



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
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	
X	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:X	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:X	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	
X	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
X	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Group delay (usec)(sbd)	-6.73288418895E+03								1.20943E-03	+/- 1.4E-04
Sband delay (usec)	-6.73288803988E+03								-1.82665E-02	+/- 1.1E-03
Phase delay (usec)	-6.73286977630E+03								-2.92263E-06	+/- 4.6E-07
Delay rate (us/s)	-9.42211389489E-01								-4.57700E-08	+/- 1.9E-09
Total phase (deg)			-190.9						-90.6	+/- 14.4
Apriori delay (usec)					-6.73286977338E+03				Resid mbdelay (usec)	
Apriori clock (usec)					-4.6978920E+01				Resid sbdelay (usec)	
Apriori clockrate (us/s)					-4.2800003E-07				Resid phdelay (usec)	
Apriori rate (us/s)					-9.42211343719E-01				Resid rate (us/s)	
Apriori accel (us/s/s)					7.28503360023E-06				Resid phase (deg)	
PCal mode: MANUAL, MANUAL									PC period (AP's) 5, 5	
PCal rate: 0.000E+00, 0.000E+00 (us/s)									sb window (us)	-1.000 1.000
Bits/sample: 2x2									mb window (us)	-0.008 0.008
Sample rate(MISamp/s): 128									dr window (ns/s)	-0.011 0.011
Data rate(Mb/s): 2048									ion window (TEC)	0.00 0.00
nlags: 256									t_cohere infinite	

ph/seg (deg) 75.7 34.5 Search (2048X32) 0.138 PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 122.5 60.3 Interp. 0.000 PCal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 54.6 20.4 Inc. seg. avg. 0.237 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 58.6 35.6 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 X: az 68.4 el 66.9 pa -73.9 u,v (fr/asec) 10347.382 -548.886 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tX..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tX.W.80.1IU DSP

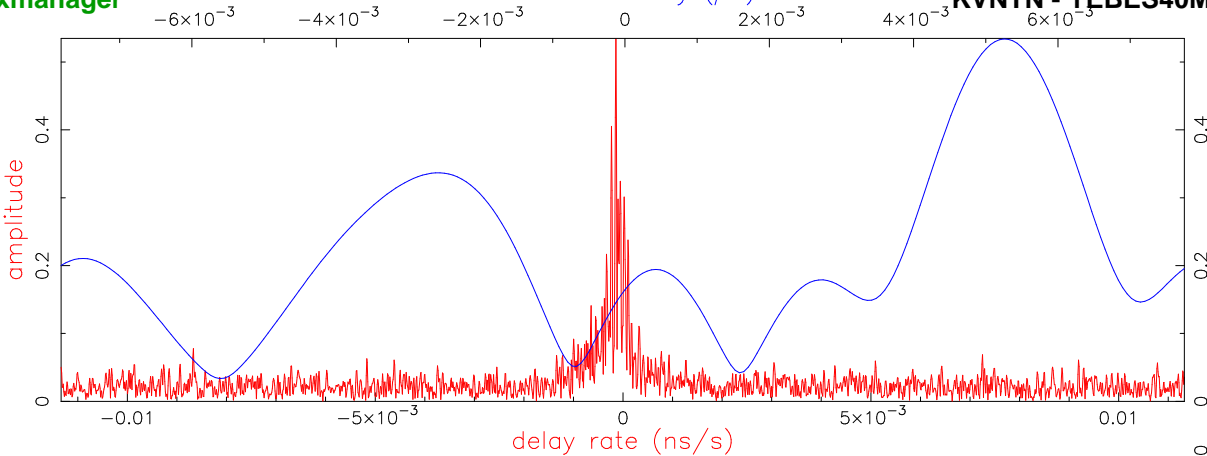
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IU DSP, No0162, tY

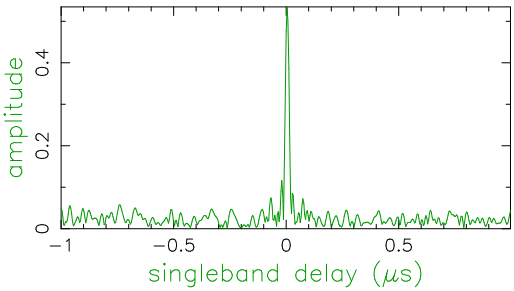
KVNTN - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

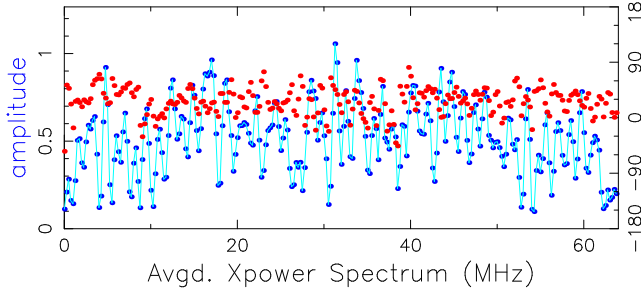


Fringe quality 4

SNR 29.3
 Int time 401.603
 Amp 0.535
 Phase 17.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.004425
 MBD 0.005275
 Fringe rate (Hz)
 -0.012268
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

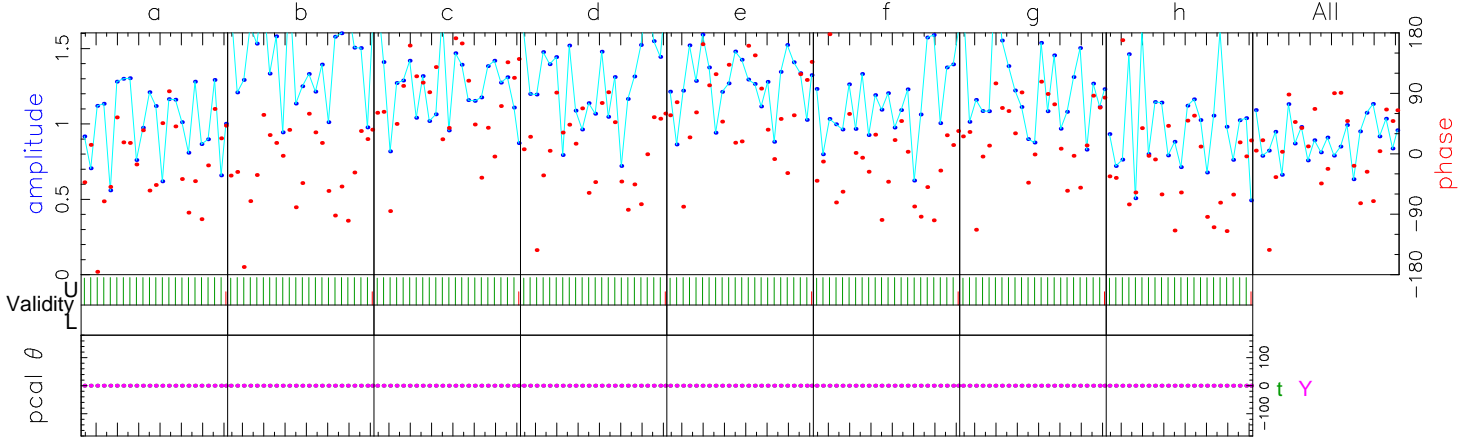


delay rate (ns/s)



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200017.90
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031650
 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
	-4.3	-13.6	84.2	14.6	72.9	-20.8	41.7	-30.8	Phase	17.4
	0.6	0.9	0.7	0.7	0.7	0.7	0.7	0.5	Ampl.	0.7
	259.9	258.0	257.8	257.3	257.4	257.3	257.8	257.3	Sbd box	258.1
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.28292525458E+03	Apriori delay (usec)	-3.28293052958E+03	Resid mbdelay (usec)	5.27499E-03	+/-	3.7E-05
Sband delay (usec)	-3.28292610458E+03	Apriori clock (usec)	-1.2312380E+01	Resid sbdelay (usec)	4.42500E-03	+/-	2.9E-04
Phase delay (usec)	-3.28293052902E+03	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	5.60506E-07	+/-	1.3E-07
Delay rate (us/s)	-1.16699264060E+00	Apriori rate (us/s)	-1.16699249819E+00	Resid rate (us/s)	-1.42418E-07	+/-	5.4E-10
Total phase (deg)	-277.1	Apriori accel (us/s/s)	7.67977003650E-06	Resid phase (deg)	17.4	+/-	3.9

ph/seg (deg)	59.1	RMS	59.1	Theor.	9.4	Amplitude	0.535 +/- 0.018	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	73.6		73.6		16.4	Search (2048X32)	0.528	Pcal rate:	0.000E+00, 0.000E+00 (us/s)			mb window (us)	-0.008	0.008
ph/frq (deg)	47.2		47.2		5.5	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled		dr window (ns/s)	-0.011	0.011
amp/frq (%)	35.4		35.4		9.7	Inc. seg. avg.	0.893	Sample rate (MSamp/s):	128			ion window (TEC)	0.00	0.00
						Inc. frq. avg.	0.692	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite			

t: az 321.4 el 38.0 pa 87.5 Y: az 43.4 el 49.2 pa -90.2 u,v (fr/asec) 12811.626 364.707 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tY..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tY.W.18.1IU DSP

Mk4/DiFX fourfit 3.21 rev 2937

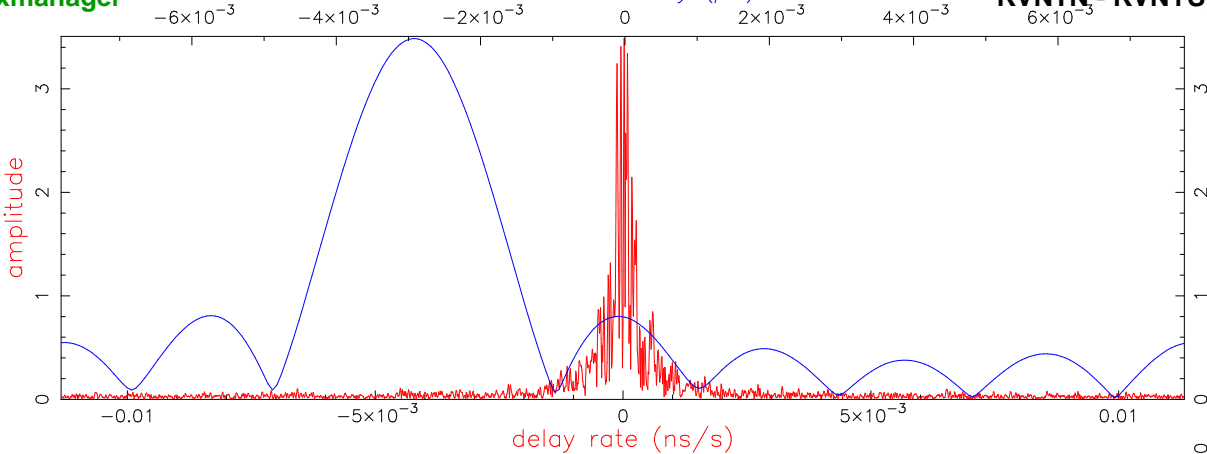
fxmanager

0102+584.1IUDSP, No0162, ty

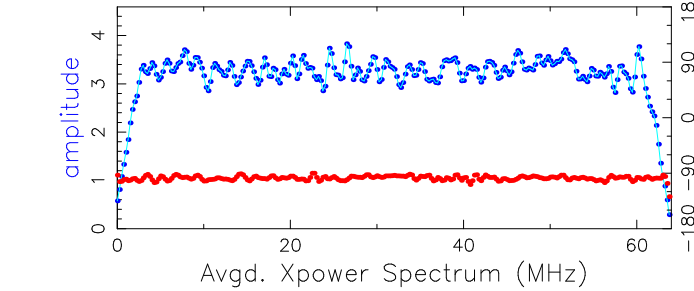
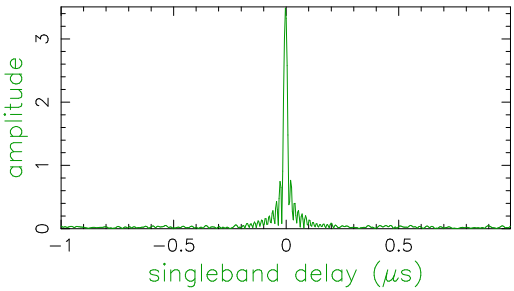
KVNTN - KVNYs, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 5

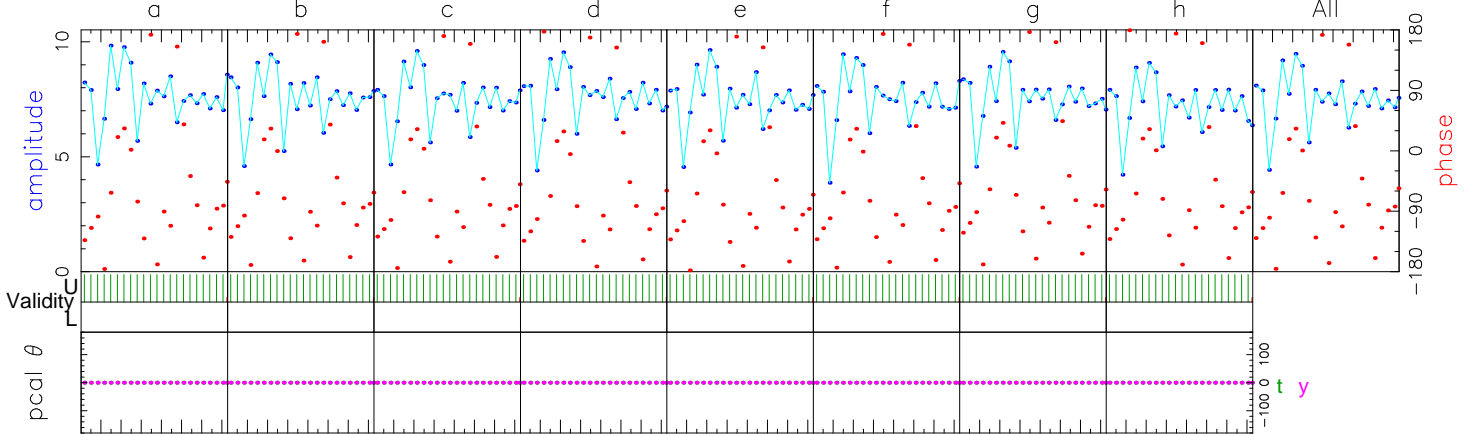


SNR 196.5
 Int time 419.826
 Amp 3.506
 Phase -97.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.002920
 MBD -0.002919
 Fringe rate (Hz) 0.002129
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031652
 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	
	-97.4	-95.5	-96.1	-102.3	-101.9	-98.1	-92.5	-99.1	Phase	-97.8	
	3.4	3.6	3.5	3.6	3.5	3.5	3.5	3.4	Ampl.	3.5	
	256.3	256.2	256.1	256.3	256.3	256.4	256.2	256.2	Sbd box	256.3	
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0	APs used		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC		
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
y	1000	1000	1000	1000	1000	1000	1000	1000			
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Chan ids		
									Tracks		
Group delay (usec)(sbd)	-8.74078632845E+02					-8.74075713802E+02			Resid mbdelay (usec)	-2.91904E-03	+/- 5.5E-06
Sband delay (usec)	-8.74078633552E+02					1.3600063E-01			Resid sbdelay (usec)	-2.91975E-03	+/- 4.4E-05
Phase delay (usec)	-8.74075716957E+02					0.0000000E+00			Resid phdelay (usec)	-3.15523E-06	+/- 1.9E-08
Delay rate (us/s)	-3.13809418118E-02					-3.13809665255E-02			Resid rate (us/s)	2.47138E-08	+/- 7.8E-11
Total phase (deg)			-93.1			-1.19503104774E-06			Resid phase (deg)	-97.8	+/- 0.6

ph/seg (deg) 67.3 1.4 Theor. Amplitude 3.506 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 118.0 2.4 Search (2048X32) 3.414 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 3.6 0.8 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.0 1.4 Inc. seg. avg. 7.495 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 t: az 321.4 el 38.0 pa 87.5 y: az 319.2 el 41.0 pa 82.1 u,v (fr/asec) 341.813 -438.387 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/ty..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/ty.W.27.1IUDSP

Mk4/DiFX fourfit 3.21 rev 2937

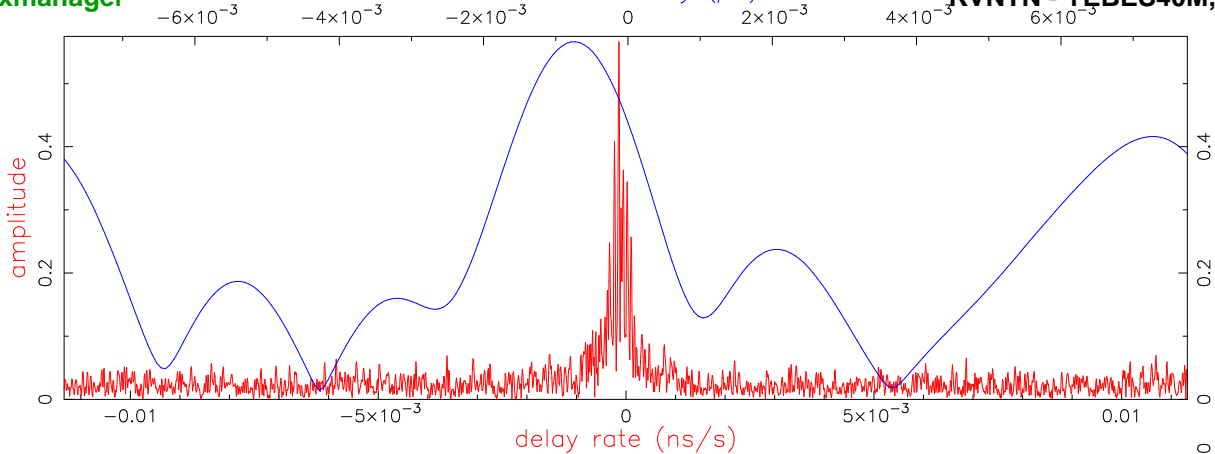
fxmanager

0102+584.1IU DSP, No0162, tY

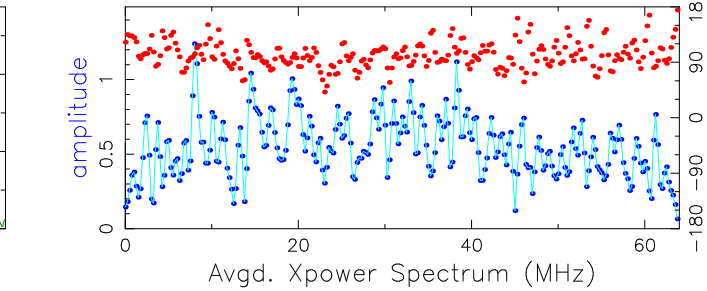
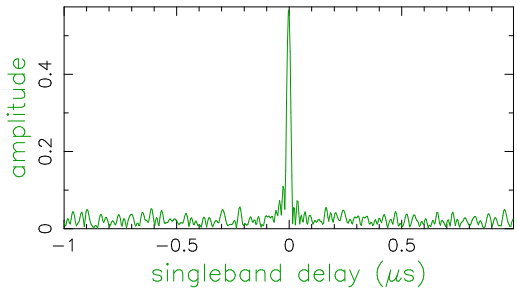
KVNTN - YEBES40M, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 4

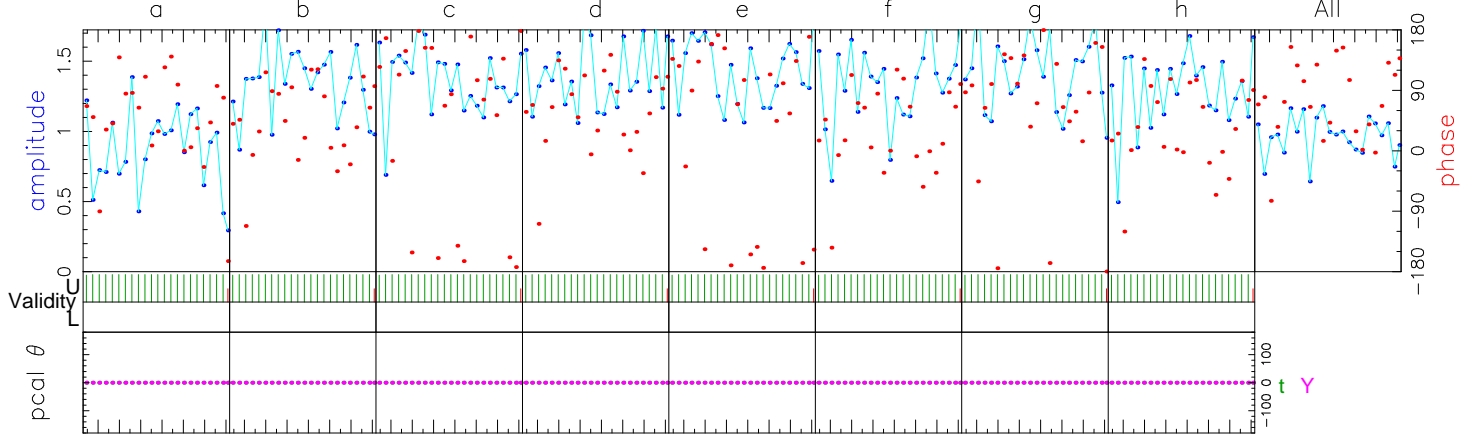


SNR 31.5
 Int time 401.603
 Amp 0.575
 Phase 81.1
 PFD 0.0e+00
 Delays (us)
 SBD -0.002265
 MBD -0.000707
 Fringe rate (Hz)
 -0.012274
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200017.90
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031654
 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
	61.4	50.6	147.1	66.2	145.5	34.5	106.8	44.9	Phase	81.1
	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.7	Ampl.	0.8
	258.2	255.9	256.3	255.6	255.9	255.7	256.3	256.2	Sbd box	256.4
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec)(sbd) -3.28293123668E+03 Apriori delay (usec) -3.28293052958E+03 Resid mbdelay (usec) -7.07100E-04 +/- 3.4E-05
 Sband delay (usec) -3.28293279433E+03 Apriori clock (usec) -1.2312380E+01 Resid sbdelay (usec) -2.26475E-03 +/- 2.7E-04
 Phase delay (usec) -3.28293052696E+03 Apriori clockrate (us/s) -2.0000006E-08 Resid phdelay (usec) 2.61674E-06 +/- 1.2E-07
 Delay rate (us/s) -1.16699264067E+00 Apriori rate (us/s) -1.16699249819E+00 Resid rate (us/s) -1.42485E-07 +/- 5.0E-10
 Total phase (deg) -213.3 Apriori accel (us/s/s) 7.67977003650E-06 Resid phase (deg) 81.1 +/- 3.6

RMS Theor. Amplitude 0.575 +/- 0.018 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 58.3 8.7 Search (2048X32) 0.549 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 amp/seg (%) 72.8 15.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 48.6 5.1 Inc. seg. avg. 0.957 Sample rate(MISamp/s): 128 dr window (ns/s) -0.011 0.011
 amp/frq (%) 36.1 9.0 Inc. frq. avg. 0.760 Data rate(Mb/s): 2048 nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 321.4 el 38.0 pa 87.5 Y: az 43.4 el 49.2 pa -90.2 u,v (fr/asec) 12811.626 364.707 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tY..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tY.W.37.1IU DSP

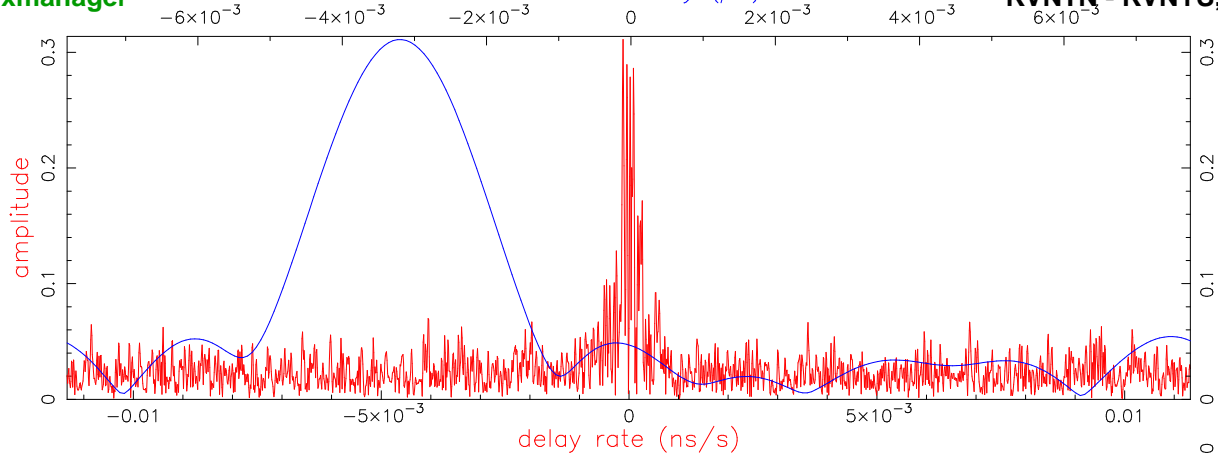
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

0102+584.1IUDSP, No0162, ty

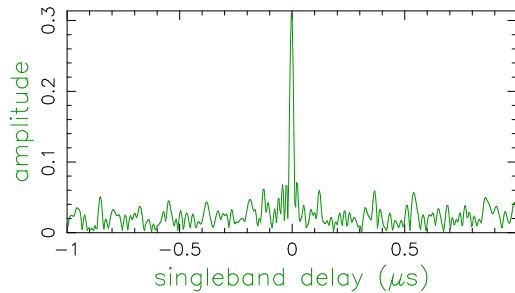
KVNTN - KVNY, fgroup W, pol LR

multiband delay (μ s)

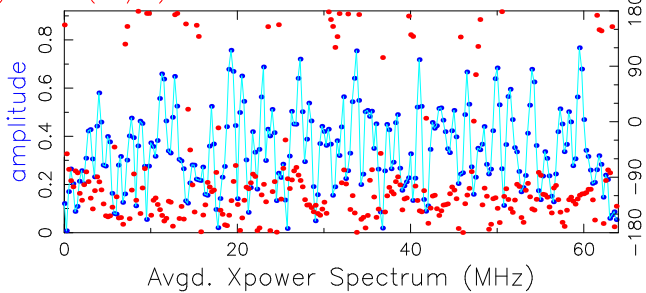


Fringe quality 9

SNR 17.6
Int time 419.826
Amp 0.314
Phase -127.5
PFD 0.0e+00
Delays (us)
SBD -0.002741
MBD -0.003205
Fringe rate (Hz)
-0.010249
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

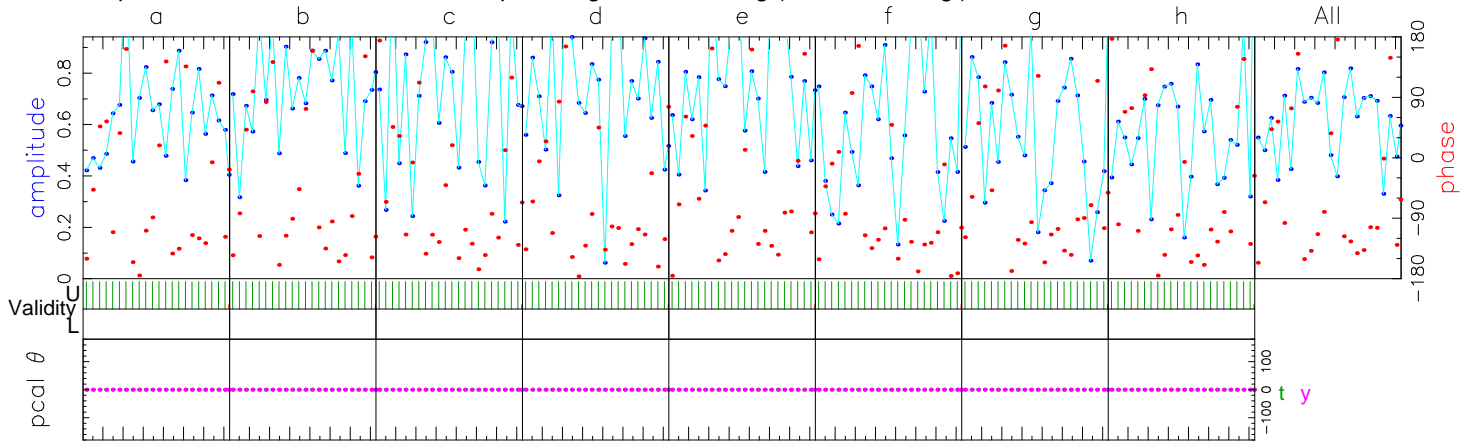


delay rate (ns/s)



Exp. c202b
Exper # 16383
Yr:day 2020:284
Start 200001.00
Stop 200700.84
FRT 200331.00
Corr/FF/build
2021:027:194527
2021:029:031655
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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
ty	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		
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Group delay (usec)(sbd)	-8.74078918845E+02	-8.74078454552E+02	-8.74075717913E+02	-8.74075713802E+02	-8.74075713802E+02	-8.74075713802E+02	-8.74075713802E+02	-8.74075713802E+02		
Sband delay (usec)	-137.2	-137.6	-119.6	-117.8	-122.8	-127.7	-120.5	-145.0		
Phase delay (usec)	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.3		
Delay rate (us/s)	256.3	256.1	256.0	256.8	256.2	255.9	256.7	256.1		
Total phase (deg)			-122.8							
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)										
mb window (us)										
dr window (ns/s)										
ion window (TEC)										
amplitude	83.9	15.6	Search (2048X32)	0.301	0.314 +/- 0.018	0.0000000E+00	0.0000000E+00	0.0000000E+00		
amp/seg (%)	105.4	27.3	Interp.	0.000	0.000	0.0000000E+00	0.0000000E+00	0.0000000E+00		
ph/frq (deg)	11.0	9.2	Inc. seg. avg.	0.591	0.591	0.0000000E+00	0.0000000E+00	0.0000000E+00		
amp/frq (%)	18.6	16.1	Inc. frq. avg.	0.311	0.311	0.0000000E+00	0.0000000E+00	0.0000000E+00		
t: az 321.4 el 38.0 pa 87.5			y: az 319.2 el 41.0 pa 82.1			u, v (fr/asec) 341.813 -438.387				
Control file: cf_1234_gmva			Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/ty..1IUDSP			Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/ty.W.46.1IUDSP				

simultaneous interpolator

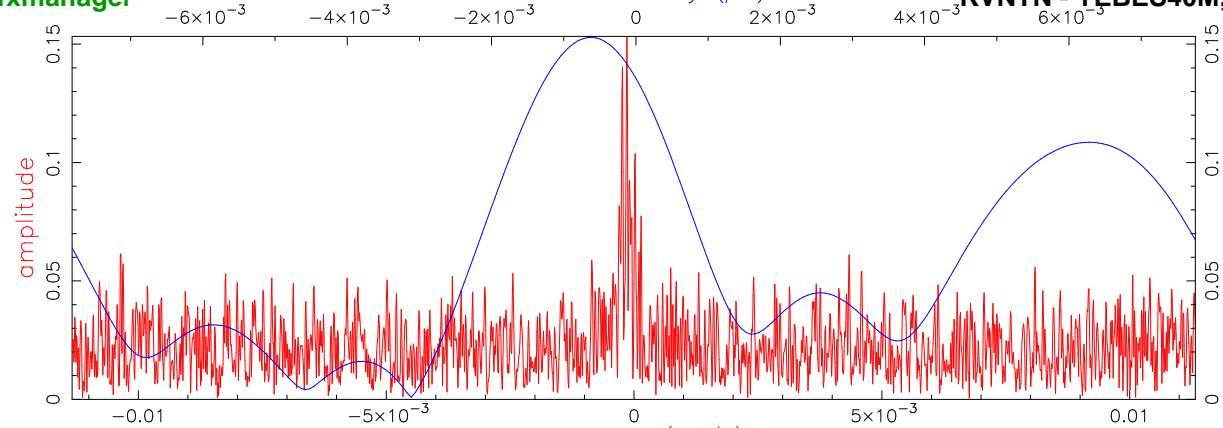
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

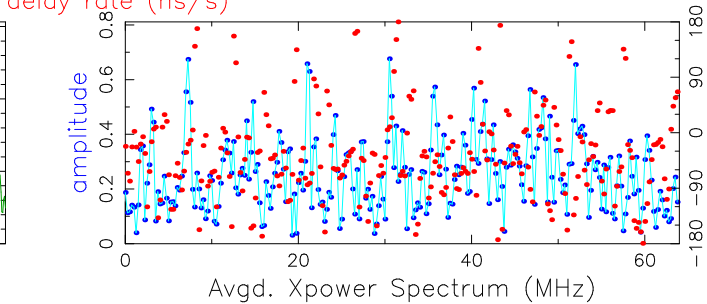
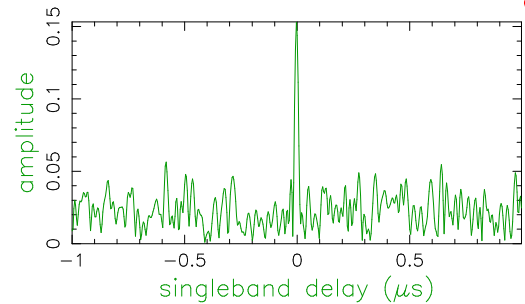
0102+584.1IUDSP, No0162, tY

KVNTN - YEBES40M, fgroup W, pol LR

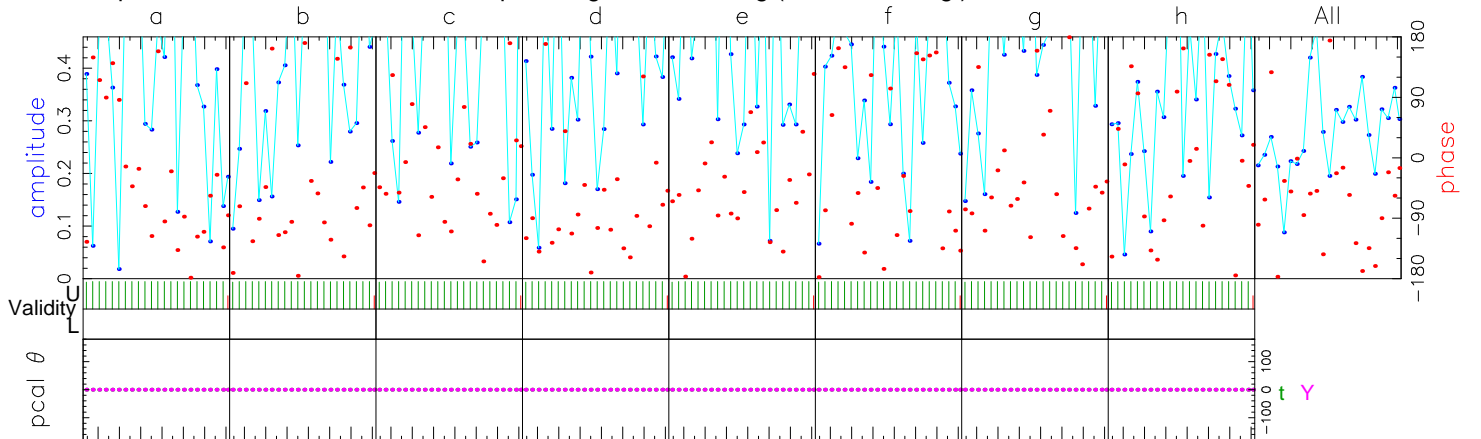
multiband delay (μs)



Fringe quality 9
 SNR 8.4
 Int time 401.603
 Amp 0.153
 Phase -77.3
 PFD 1.6e-08
 Delays (us)
 SBD -0.003241
 MBD -0.000622
 Fringe rate (Hz)
 -0.012355
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200017.90
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031657
 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
	-79.8	-98.3	-37.3	-102.7	-32.0	-152.6	-70.9	109.6	Phase	-77.3
	0.1	0.2	0.2	0.3	0.3	0.2	0.3	0.0	Ampl.	0.2
	258.1	256.1	256.3	255.0	256.2	254.2	256.2	124.6	Sbd box	256.2
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0	APs used	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-3.28293115177E+03		Apriori delay (usec)		-3.28293052958E+03		Resid mbdelay (usec)		-6.22193E-04	+/- 1.3E-04
Sband delay (usec)	-3.28293377083E+03		Apriori clock (usec)		-1.2312380E+01		Resid sbdelay (usec)		-3.24125E-03	+/- 1.0E-03
Phase delay (usec)	-3.28293053207E+03		Apriori clockrate (us/s)		-2.0000006E-08		Resid phdelay (usec)		-2.49288E-06	+/- 4.4E-07
Delay rate (us/s)	-1.16699264161E+00		Apriori rate (us/s)		-1.16699249819E+00		Resid rate (us/s)		-1.43428E-07	+/- 1.9E-09
Total phase (deg)			Apriori accel (us/s/s)		7.67977003650E-06		Resid phase (deg)		-77.3	+/- 13.6

ph/seg (deg) 64.9 32.7 Search (2048X32) 0.151 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 99.3 57.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
 ph/frq (deg) 82.1 19.3 Inc. seg. avg. 0.242 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 61.2 33.7 Inc. frq. avg. 0.182 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 Y: az 43.4 el 49.2 pa -90.2 u,v (fr/asec) 12811.626 364.707 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tY..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tY.W.54.1IUDSP

Mk4/DiFX fourfit 3.21 rev 2937

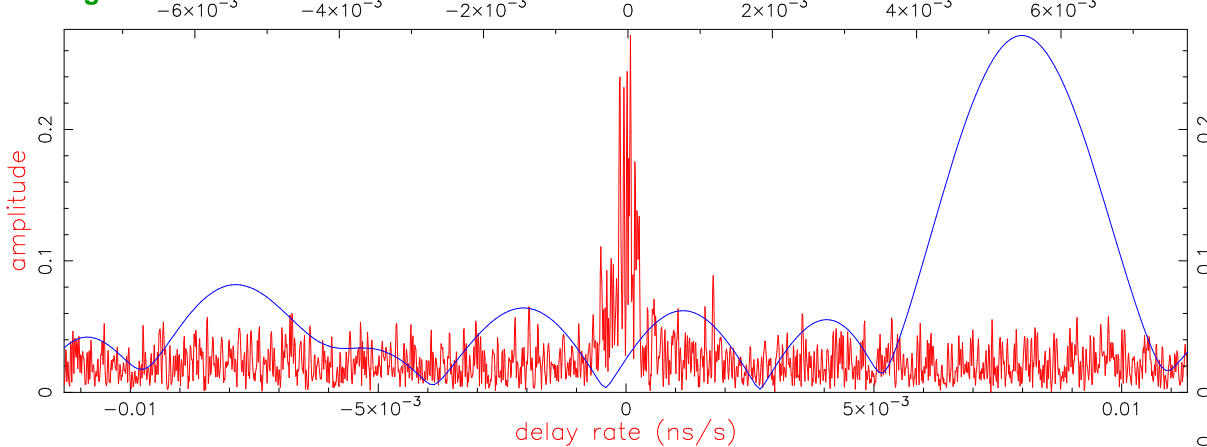
fxmanager

0102+584.1IUDSP, No0162, ty

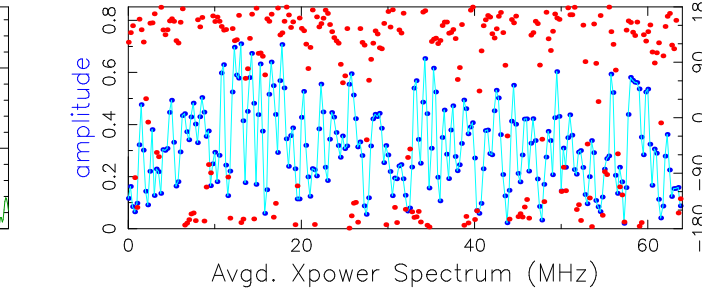
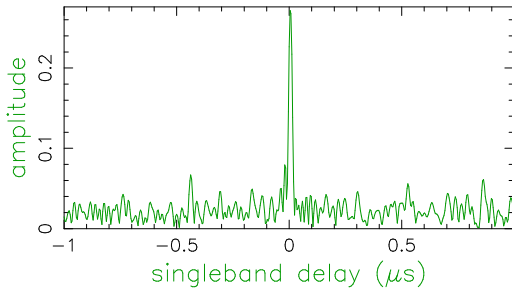
KVNTN - KVNYS, fgroup W, pol RL

multiband delay (μs)

Fringe quality 9

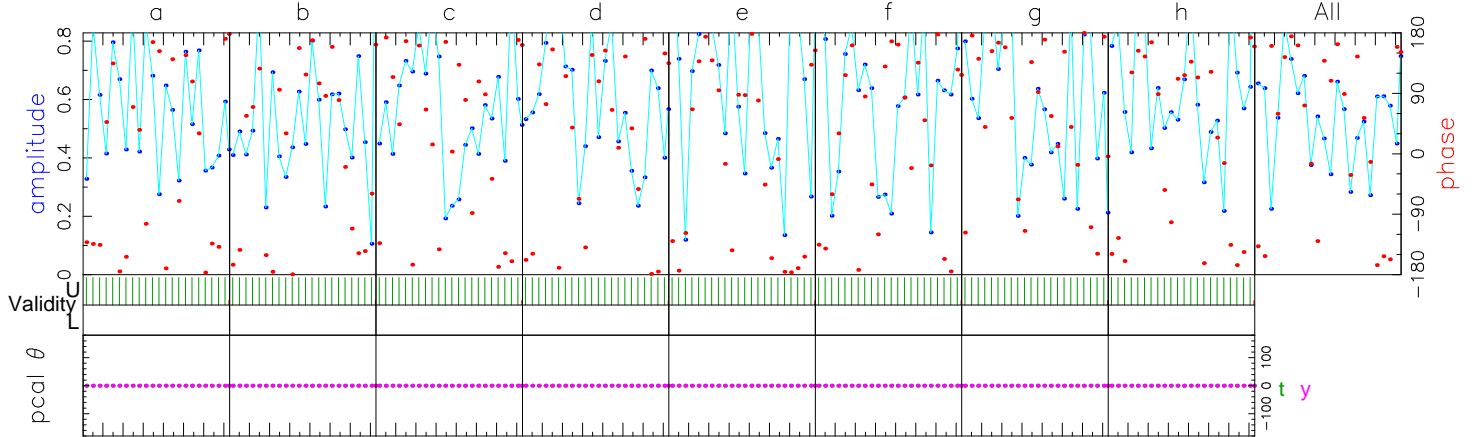


SNR 15.5
Int time 419.826
Amp 0.276
Phase 159.0
PFD 2.8e-45
Delays (us)
SBD 0.005541
MBD 0.005459
Fringe rate (Hz) 0.007951
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512



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"

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	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
ty	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.74070255193E+02					-8.74075713802E+02			Resid mbdelay (usec)	5.45861E-03 +/- 7.0E-05
Sband delay (usec)	-8.74070173052E+02					1.3600063E-01			Resid sbdelay (usec)	5.54075E-03 +/- 5.6E-04
Phase delay (usec)	-8.74075708673E+02					0.0000000E+00			Resid phdelay (usec)	5.12831E-06 +/- 2.4E-07
Delay rate (us/s)	-3.13808742274E-02					-3.13809665255E-02			Resid rate (us/s)	9.22981E-08 +/- 9.9E-10
Total phase (deg)		-196.2				-1.19503104774E-06			Resid phase (deg)	159.0 +/- 7.4
	RMS	Theor.	Amplitude	0.276 +/- 0.018					PCal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	80.2	17.8	Search (2048X32)	0.260					PCal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	109.6	31.0	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled
ph/frq (deg)	11.2	10.5	Inc. seg. avg.	0.510					Sample rate(MISamp/s): 128	mb window (us) -0.008 0.008
amp/frq (%)	20.7	18.3	Inc. frq. avg.	0.271					Data rate(Mb/s): 2048	dr window (ns/s) -0.011 0.011
									nlags: 256	t_cohere infinite
										ion window (TEC) 0.00 0.00

t: az 321.4 el 38.0 pa 87.5 y: az 319.2 el 41.0 pa 82.1 u,v (fr/asec) 341.813 -438.387 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/ty..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/ty.W.68.1IUDSP

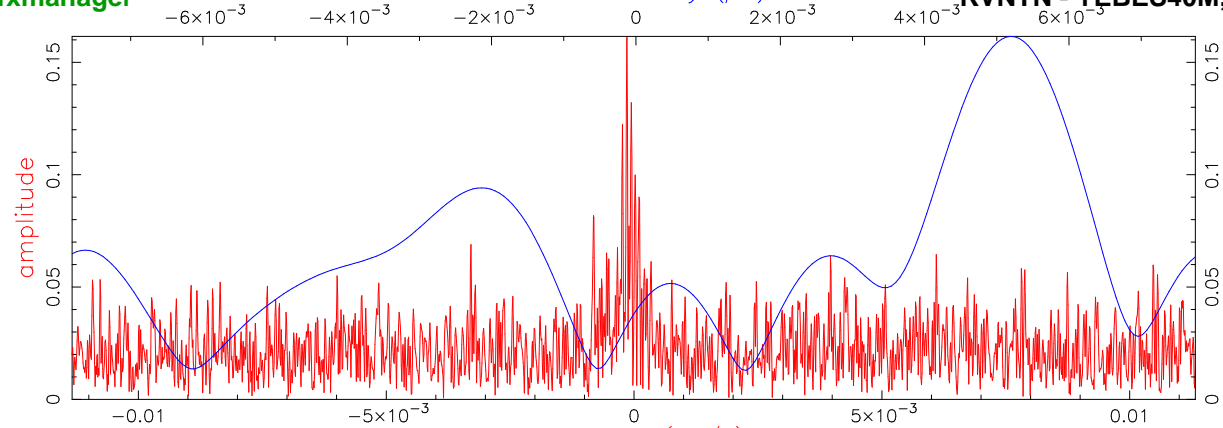
Mk4/DiFX fourfit 3.21 rev 2937

fxmanager

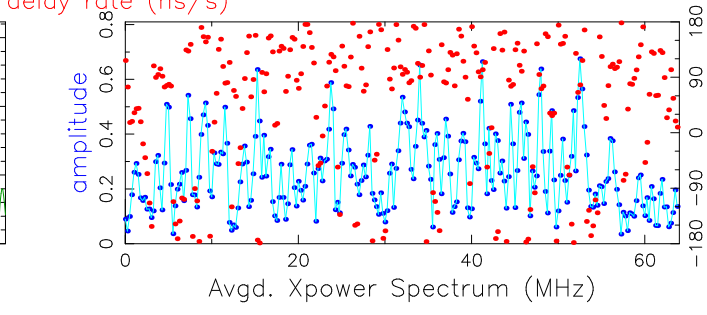
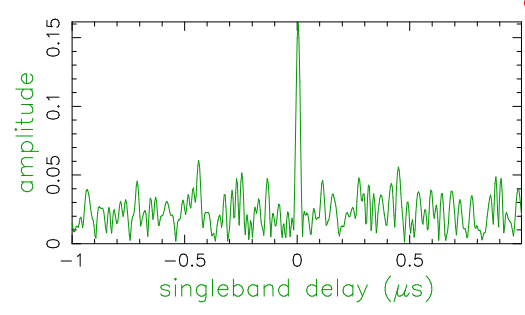
0102+584.1IU DSP, No0162, tY

KVNTN - YEBES40M, fgroup W, pol RL

multiband delay (μ s)

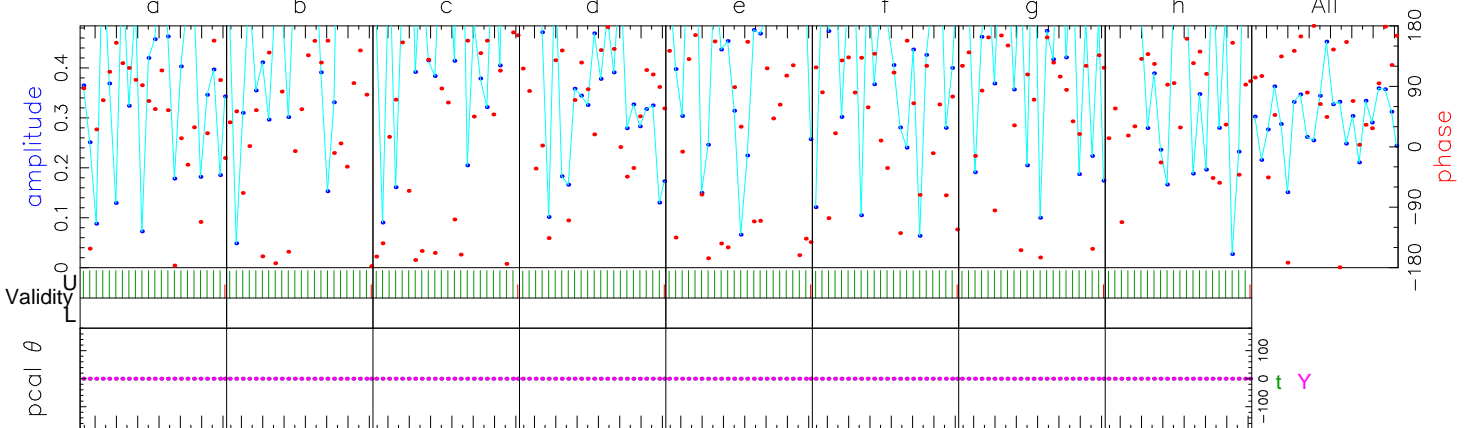


Fringe quality 9
 SNR 8.9
 Int time 401.603
 Amp 0.162
 Phase 105.9
 PFD 3.3e-10
 Delays (us)
 SBD 0.003989
 MBD 0.005197
 Fringe rate (Hz)
 -0.012042
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200017.90
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031701
 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, 35 APs / seg (17.92 sec / seg.), time ticks 30 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	787/0	787/0	787/0	787/0	787/0	787/0	787/0	787/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-3.28292533208E+03	Apriori delay (usec)	-3.28293052958E+03	Resid mbdelay (usec)	5.19749E-03	+/-	1.2E-04
Sband delay (usec)	-3.28292654008E+03	Apriori clock (usec)	-1.2312380E+01	Resid sbdelay (usec)	3.98950E-03	+/-	9.7E-04
Phase delay (usec)	-3.28293052616E+03	Apriori clockrate (us/s)	-2.0000006E-08	Resid phdelay (usec)	3.41635E-06	+/-	4.2E-07
Delay rate (us/s)	-1.16699263798E+00	Apriori rate (us/s)	-1.16699249819E+00	Resid rate (us/s)	-1.39794E-07	+/-	1.8E-09
Total phase (deg)	-188.5	Apriori accel (us/s/s)	7.67977003650E-06	Resid phase (deg)	105.9	+/-	12.9

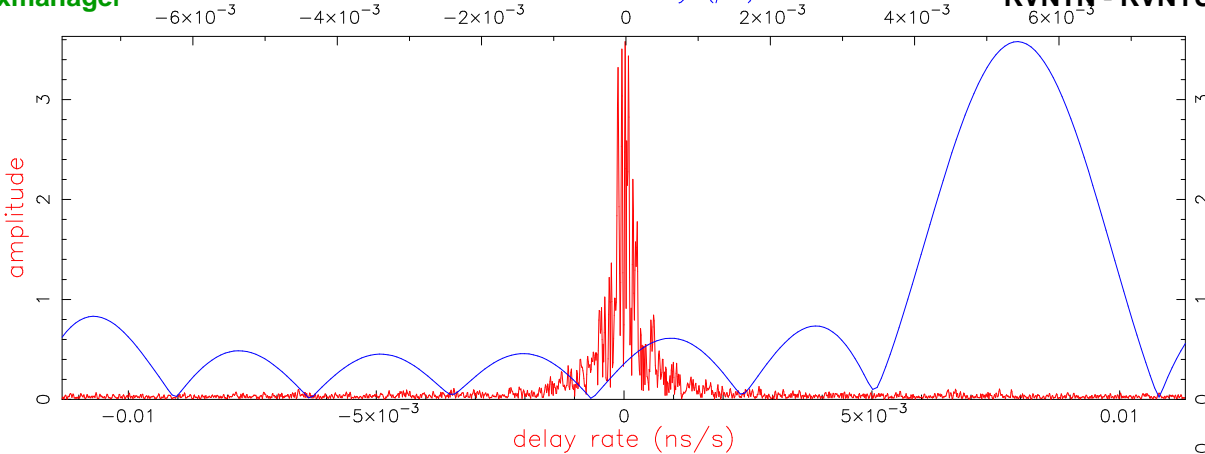
ph/seg (deg)	63.6	Theor.	31.0	Amplitude	0.162 +/- 0.018	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-1.000	1.000
amp/seg (%)	95.2		54.2	Search (2048X32)	0.154	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	42.4		18.3	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.0		32.0	Inc. seg. avg.	0.263	Sample rate(MISamp/s): 128		ion window (TEC)	0.00	0.00
				Inc. frq. avg.	0.191	Data rate(Mb/s): 2048	nlags: 256	t_cohere infinite		

t: az 321.4 el 38.0 pa 87.5 Y: az 43.4 el 49.2 pa -90.2 u,v (fr/asec) 12811.626 364.707 simultaneous interpolator

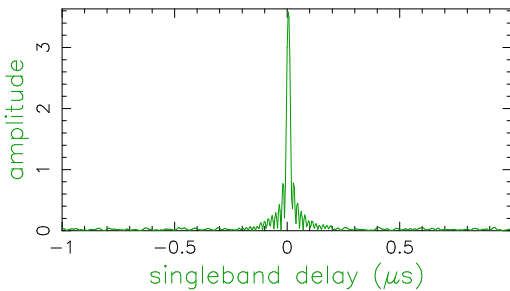
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tY..1IU DSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tY.W.74.1IU DSP

multiband delay (μ s)

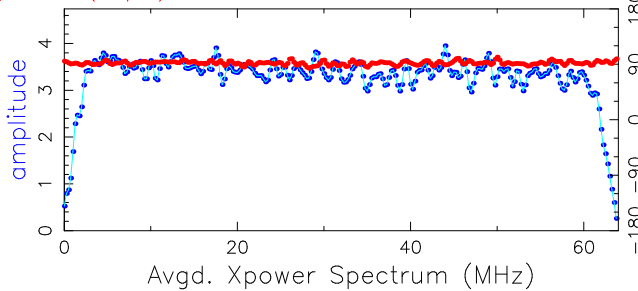
Fringe quality 5



SNR 203.6
Int time 419.826
Amp 3.633
Phase 91.7
PFD 0.0e+00
Delays (us)
SBD 0.005433
MBD 0.005427
Fringe rate (Hz)
0.002139
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

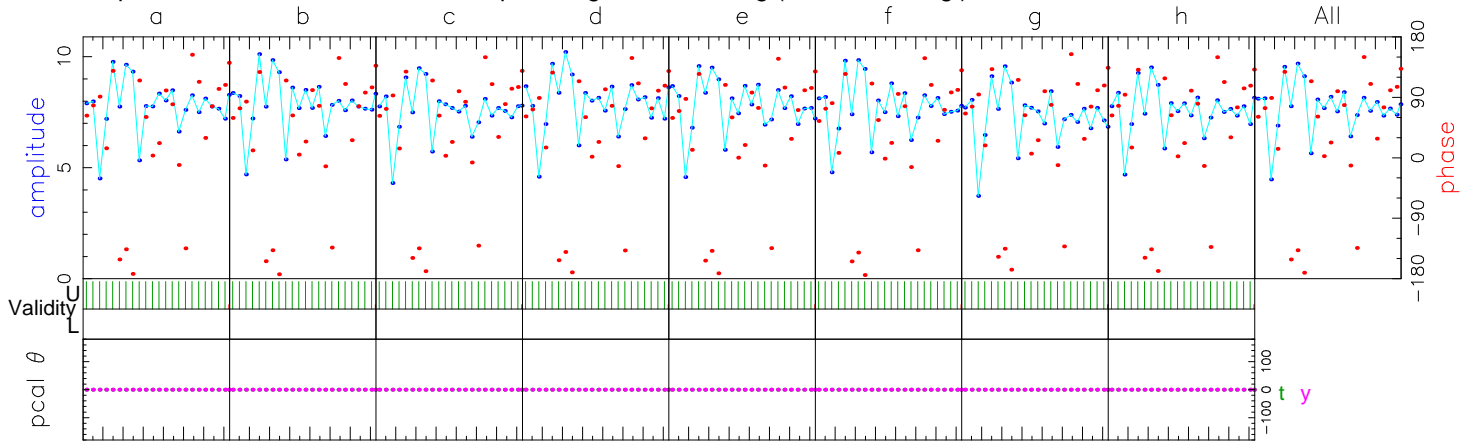


delay rate (ns/s)



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"

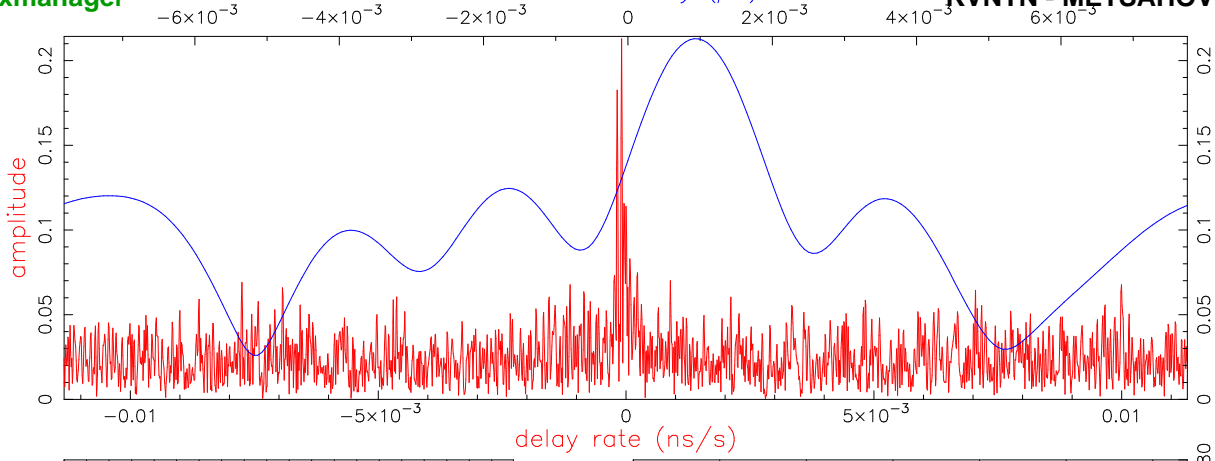
Amp. and Phase vs. time for each freq., 23 segs, 37 APs / seg (18.94 sec / seg.), time ticks 30 sec



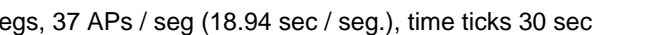
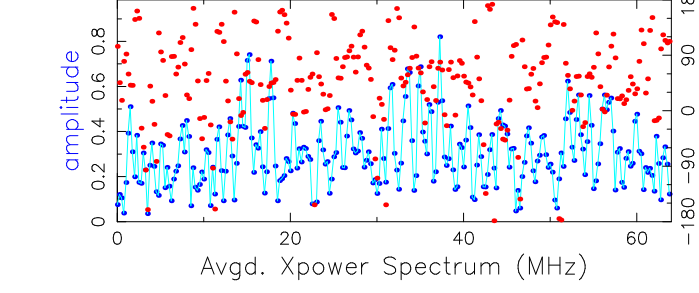
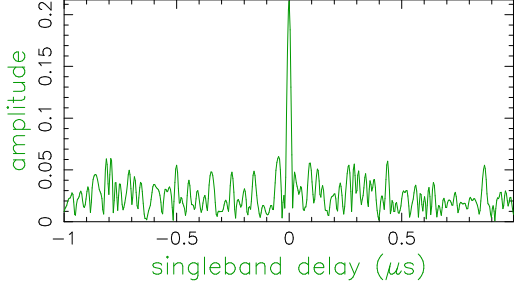
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	820/0	820/0	820/0	820/0	820/0	820/0	820/0	820/0		
t	1000	1000	1000	1000	1000	1000	1000	1000	APs used	
y	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
t	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
y	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec)(sbd)	-8.74070287157E+02					-8.74075713802E+02			Resid mbdelay (usec)	5.42664E-03 +/- 5.3E-06
Sband delay (usec)	-8.74070281302E+02								Resid sbdelay (usec)	5.43250E-03 +/- 4.2E-05
Phase delay (usec)	-8.74075710844E+02								Resid phdelay (usec)	2.95767E-06 +/- 1.8E-08
Delay rate (us/s)	-3.13809416885E-02								Resid rate (us/s)	2.48371E-08 +/- 7.5E-11
Total phase (deg)			-263.6						Resid phase (deg)	91.7 +/- 0.6

ph/seg (deg) 67.3 1.3 Search (2048X32) 3.497 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
amp/seg (%) 115.9 2.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -1.000 1.000
ph/frq (deg) 2.6 0.8 Inc. seg. avg. 7.688 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
amp/frq (%) 3.2 1.4 Inc. frq. avg. 3.584 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 y: az 319.2 el 41.0 pa 82.1 u,v (fr/asec) 341.813 -438.387 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/ty..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/ty.W.8.1IUDSP

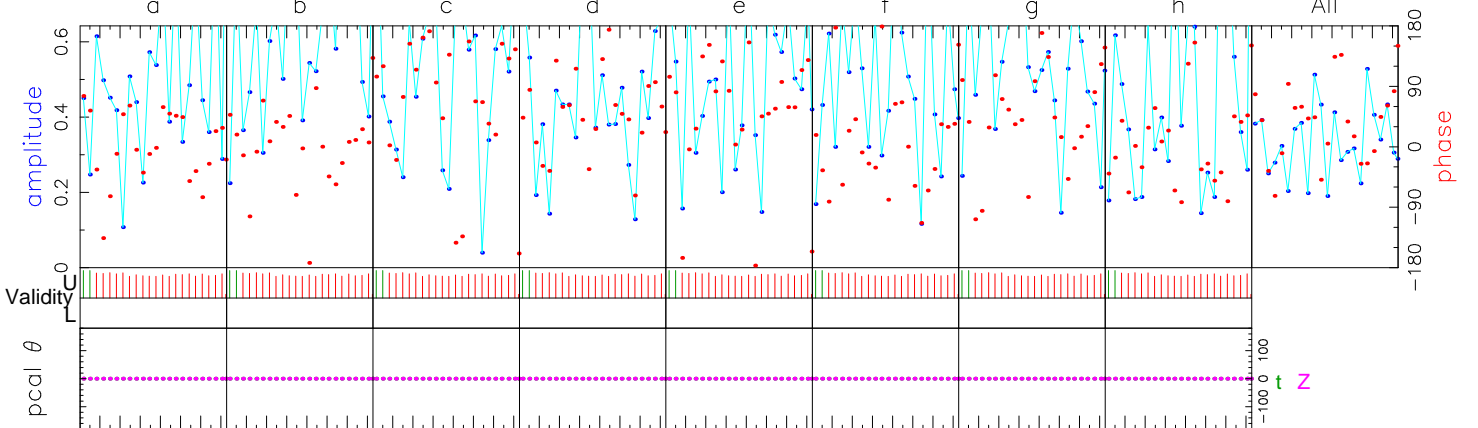
multiband delay (μ s)



Fringe quality 9
 SNR 11.1
 Int time 361.415
 Amp 0.214
 Phase 33.0
 PFD 3.8e-20
 Delays (us)
 SBD -0.001060
 MBD 0.000948
 Fringe rate (Hz)
 -0.007247
 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
 2021:029:031650
 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		
t	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec)(sbd) -7.53176158107E+03 Apriori delay (usec) -7.53176252955E+03 Resid mbdelay (usec) 9.48486E-04 +/- 9.7E-05
 Sband delay (usec) -7.53176358930E+03 Apriori clock (usec) 1.2351894E+00 Resid sbdelay (usec) -1.05975E-03 +/- 7.7E-04
 Phase delay (usec) -7.53176252849E+03 Apriori clockrate (us/s) 8.3999986E-08 Resid phdelay (usec) 1.06397E-06 +/- 3.3E-07
 Delay rate (us/s) -8.48882789239E-01 Apriori rate (us/s) -8.48882705107E-01 Resid rate (us/s) -8.41320E-08 +/- 1.4E-09
 Total phase (deg) -73.4 Apriori accel (us/s/s) 9.32692035807E-06 Resid phase (deg) 33.0 +/- 10.3

ph/seg (deg) 54.9 24.7 Search (2048X32) 0.202 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 72.3 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) 55.3 14.5 Inc. seg. avg. 0.310 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 49.1 25.4 Inc. frq. avg. 0.294 Sample rate(MSamp/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 Z: az 82.1 el 73.9 pa -69.9 u,v (fr/asec) 9328.685 -393.290 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tZ..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tZ.W.17.1IUDSP

Mk4/DiFX fourfit 3.21 rev 2937

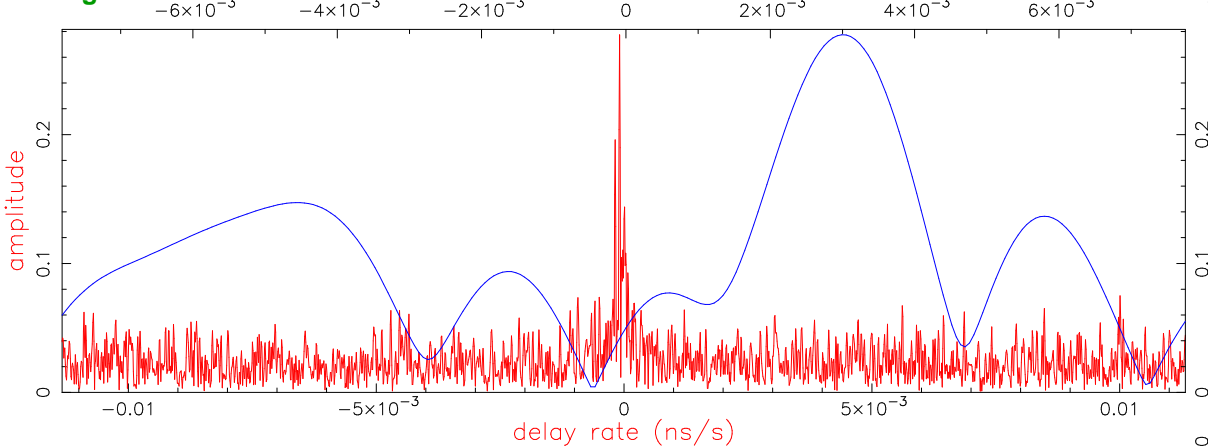
fxmanager

0102+584.1IUDSP, No0162, tZ

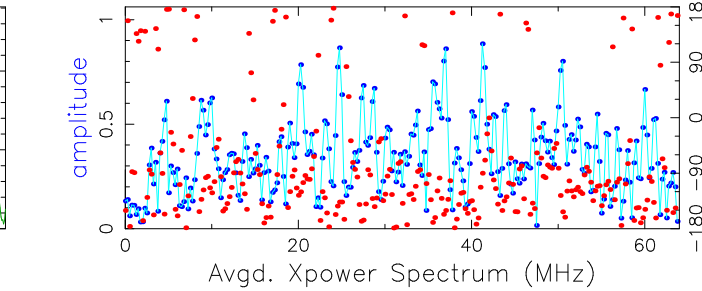
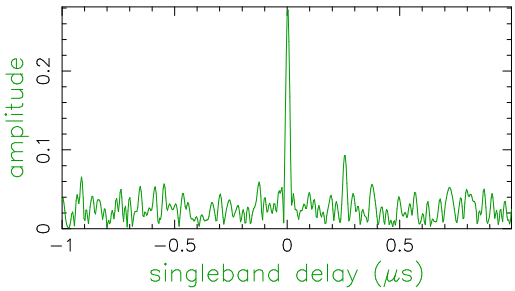
KVNTN - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 8

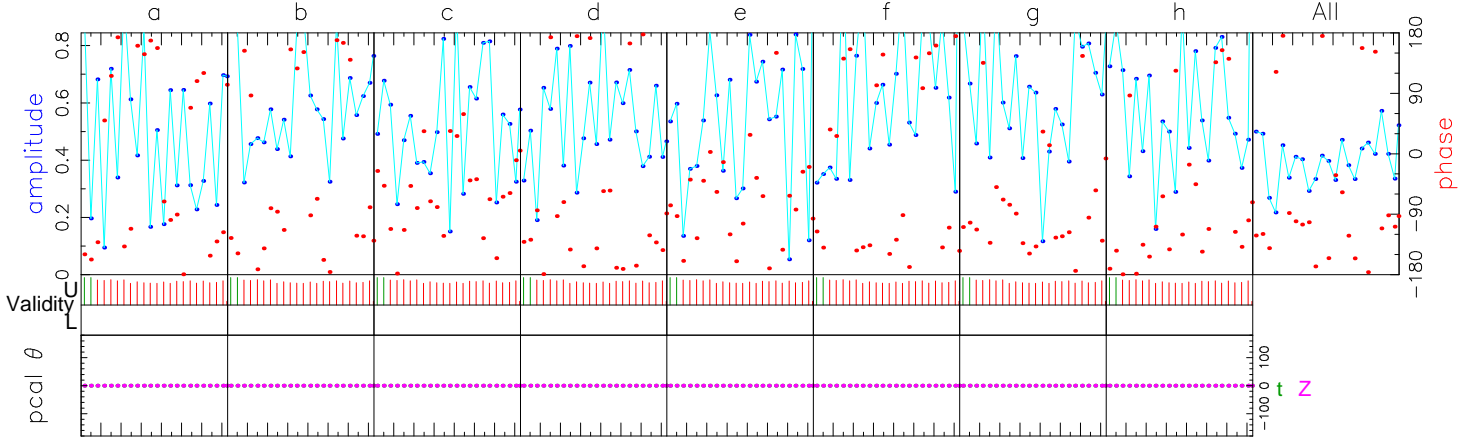


SNR 14.6
 Int time 361.415
 Amp 0.282
 Phase -132.9
 PFD 9.8e-40
 Delays (us)
 SBD 0.002220
 MBD 0.002976
 Fringe rate (Hz)
 -0.007250
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
t:Z	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		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec)(sbd)	-7.53175955319E+03	Apriori delay (usec)	-7.53176252955E+03	Resid mbdelay (usec)	2.97636E-03	+/-	7.4E-05
Sband delay (usec)	-7.53176030955E+03	Apriori clock (usec)	1.2351894E+00	Resid sbdelay (usec)	2.22000E-03	+/-	5.9E-04
Phase delay (usec)	-7.53176253384E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	-4.28521E-06	+/-	2.5E-07
Delay rate (us/s)	-8.48882789274E-01	Apriori rate (us/s)	-8.48882705107E-01	Resid rate (us/s)	-8.41667E-08	+/-	1.0E-09
Total phase (deg)	-239.3	Apriori accel (us/s/s)	9.32692035807E-06	Resid phase (deg)	-132.9	+/-	7.8

ph/seg (deg)	49.8	RMS	27.0	Theor.	18.8	Amplitude	0.282 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	50.2	Search (2048X32)	0.264	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	46.0	Inc. seg. avg.	0.376	Inc. frq. avg.	0.342	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	27.0	Inc. frq. avg.	0.342	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

t: az 321.4 el 38.0 pa 87.5 Z: az 82.1 el 73.9 pa -69.9 u,v (fr/asec) 9328.685 -393.290 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tZ..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tZ.W.39.1IUDSP

Mk4/DiFX fourfit 3.21 rev 2937

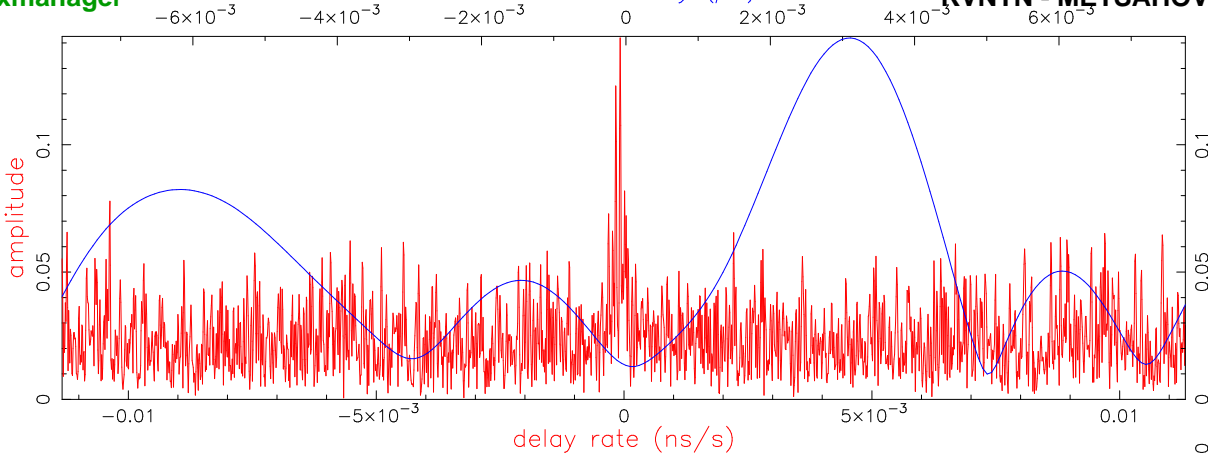
fxmanager

0102+584.1IUDSP, No0162, tZ

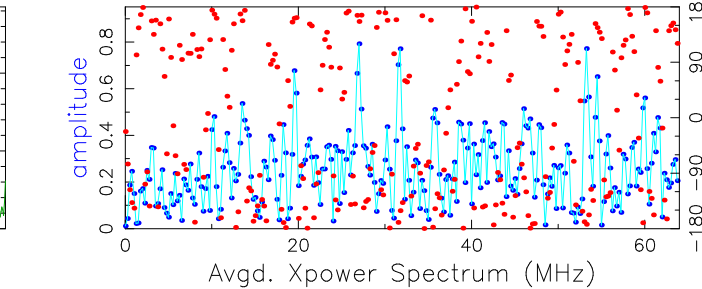
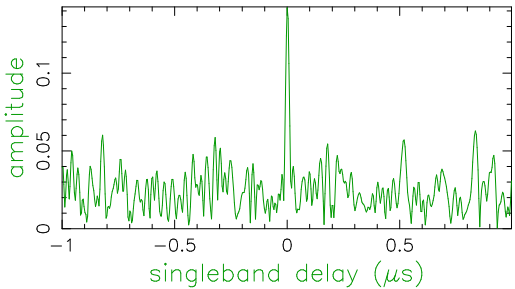
KVNTN - METSAHOV, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 9

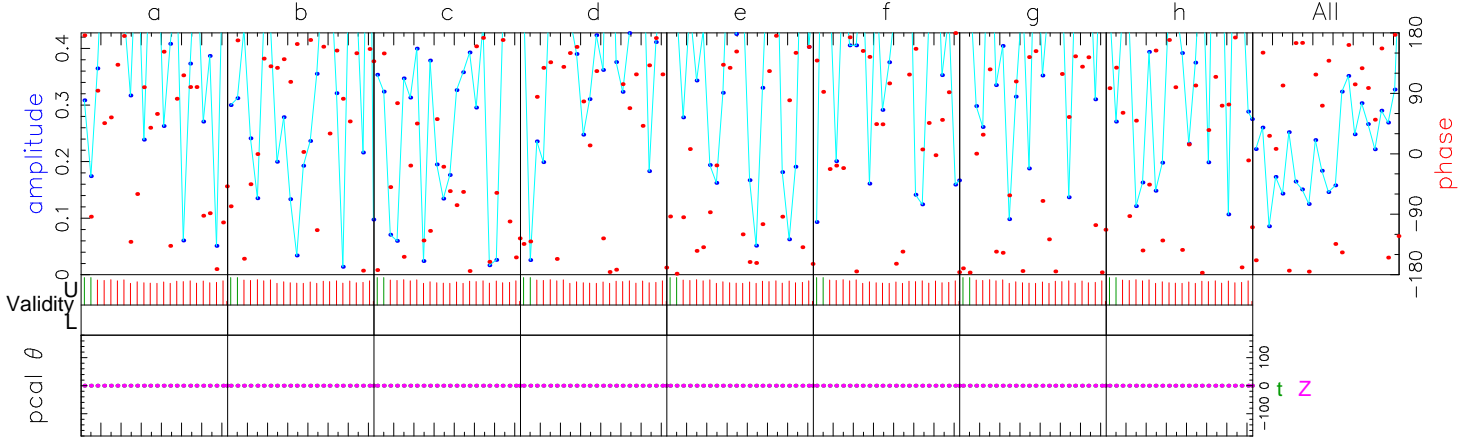


SNR 7.4
 Int time 361.415
 Amp 0.143
 Phase 152.5
 PFD 3.9e-05
 Delays (us)
 SBD 0.000863
 MBD 0.003079
 Fringe rate (Hz)
 -0.007028
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031658
 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
93.8	147.4	-144.4	141.6	-165.0	94.0	166.4	131.1	152.5	Phase	152.5
0.1	0.2	0.1	0.2	0.2	0.1	0.3	0.2	0.2	Ampl.	0.2
393.1	302.2	12.2	257.2	255.8	217.8	256.6	257.9	257.2	Sbd box	257.2
U/L 820/0	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	1000	PC freqs	
Z 1000	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Z 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Z 0:0	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	1000	PC amp	
Z 1000	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec)(sbd)	-7.53175945090E+03		Apriori delay (usec)	-7.53176252955E+03		Resid mbdelay (usec)	3.07865E-03	+/-	1.5E-04	
Sband delay (usec)	-7.53176166605E+03		Apriori clock (usec)	1.2351894E+00		Resid sbdelay (usec)	8.63500E-04	+/-	1.2E-03	
Phase delay (usec)	-7.53176252463E+03		Apriori clockrate (us/s)	8.3999986E-08		Resid phdelay (usec)	4.91931E-06	+/-	5.0E-07	
Delay rate (us/s)	-8.48882786697E-01		Apriori rate (us/s)	-8.48882705107E-01		Resid rate (us/s)	-8.15897E-08	+/-	2.1E-09	
Total phase (deg)		46.2	Apriori accel (us/s/s)	9.32692035807E-06		Resid phase (deg)	152.5	+/-	15.5	

	RMS	Theor.	Amplitude	0.143 +/- 0.019	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	61.3	37.1	Search (2048X32)	0.135	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -1.000 1.000
amp/seg (%)	77.9	64.7	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	47.4	21.9	Inc. seg. avg.	0.186	Sample rate(MISamp/s): 128	dr window (ns/s) -0.011 0.011
amp/frq (%)	46.8	38.2	Inc. frq. avg.	0.162	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite ion window (TEC) 0.00 0.00

t: az 321.4 el 38.0 pa 87.5 Z: az 82.1 el 73.9 pa -69.9 u,v (fr/asec) 9328.685 -393.290 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tZ..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tZ.W.58.1IUDSP

Mk4/DiFX fourfit 3.21 rev 2937

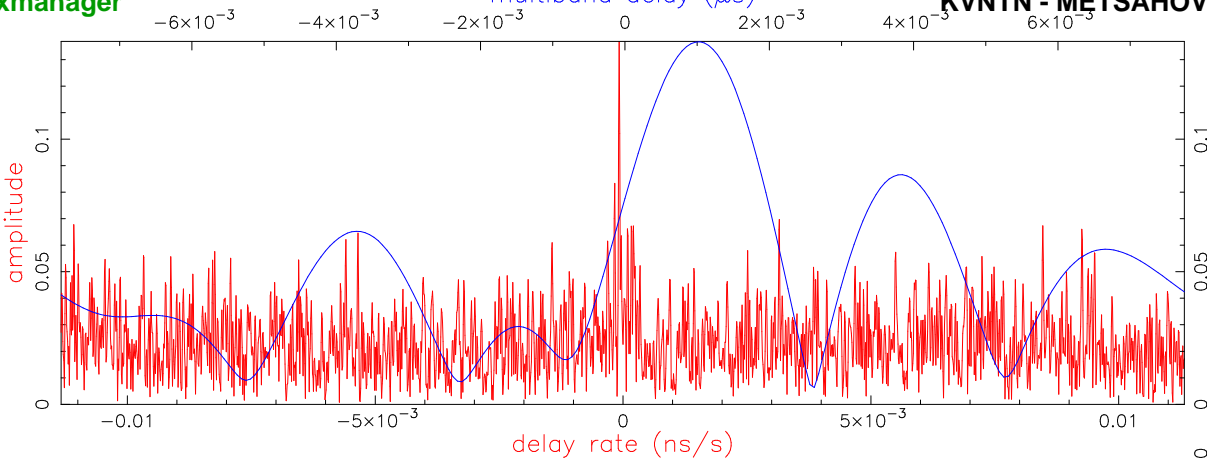
fxmanager

0102+584.1IUDSP, No0162, tZ

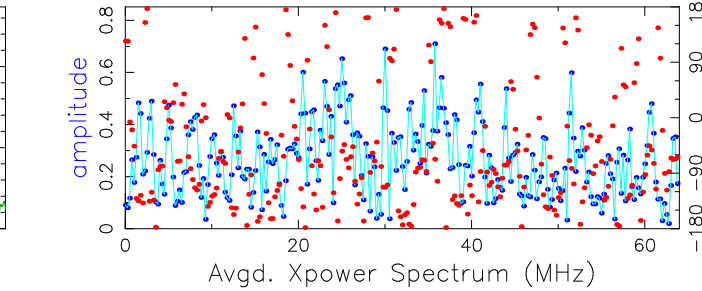
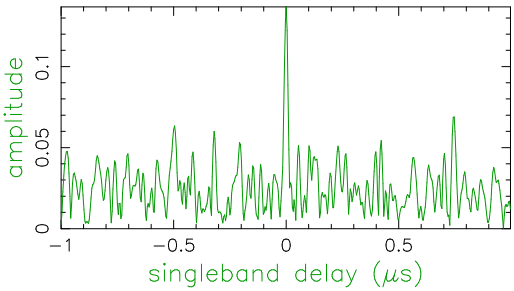
KVNTN - METSAHOV, fgroup W, pol RL

multiband delay (μ s)

Fringe quality 0

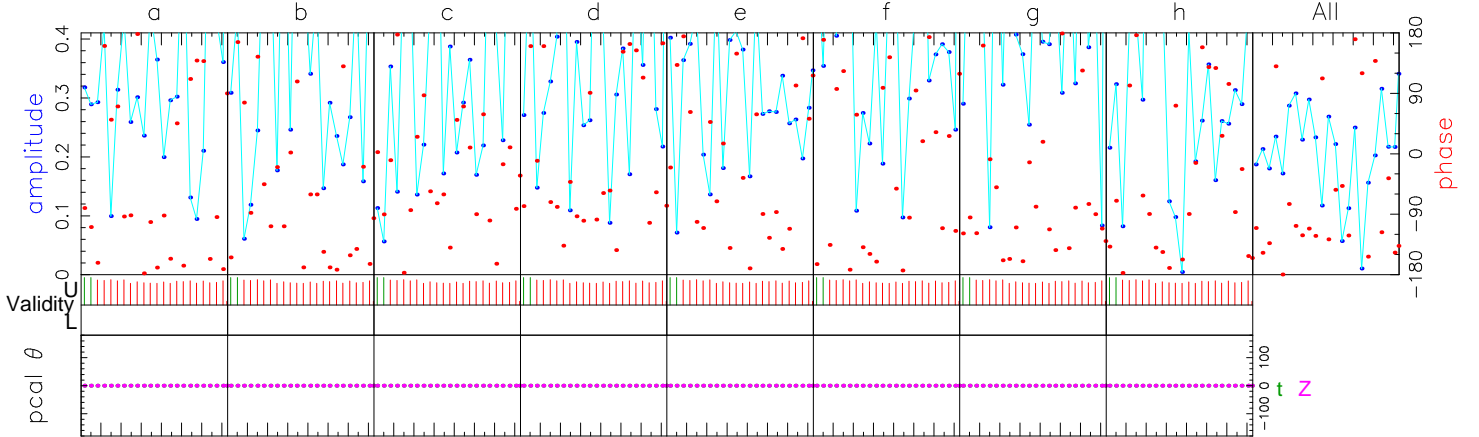


SNR 7.1
 Int time 361.415
 Amp 0.137
 Phase -129.1
 PFD 3.4e-04
 Delays (us)
 SBD -0.000449
 MBD 0.001005
 Fringe rate (Hz)
 -0.006982
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. c202b
 Exper # 16383
 Yr:day 2020:284
 Start 200001.00
 Stop 200700.84
 FRT 200331.00
 Corr/FF/build
 2021:027:194527
 2021:029:031702
 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
	-151.0	-136.4	-59.5	-127.1	-106.8	170.9	-118.8	-132.4	Phase	-129.1
	0.2	0.2	0.1	0.2	0.1	0.1	0.3	0.1	Ampl.	0.1
	258.0	325.0	319.4	256.2	204.1	104.0	257.8	255.7	Sbd box	256.9
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	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
t:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
t:Z	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	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
t	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec)(sbd)	-7.53176152409E+03	Apriori delay (usec)	-7.53176252955E+03	Resid mbdelay (usec)	1.00546E-03	+/-	1.5E-04
Sband delay (usec)	-7.53176297880E+03	Apriori clock (usec)	1.2351894E+00	Resid sbdelay (usec)	-4.49250E-04	+/-	1.2E-03
Phase delay (usec)	-7.53176253372E+03	Apriori clockrate (us/s)	8.3999986E-08	Resid phdelay (usec)	-4.16465E-06	+/-	5.2E-07
Delay rate (us/s)	-8.48882786166E-01	Apriori rate (us/s)	-8.48882705107E-01	Resid rate (us/s)	-8.10590E-08	+/-	2.1E-09
Total phase (deg)	-235.5	Apriori accel (us/s/s)	9.32692035807E-06	Resid phase (deg)	-129.1	+/-	16.1

ph/seg (deg)	58.9	RMS	74.6	Theor.	38.6	Amplitude	0.137 +/- 0.019	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	74.6	Search (2048X32)	0.132	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-1.000	1.000		
ph/frq (deg)	40.0	Inc. seg. avg.	0.167	Inc. frq. avg.	0.147	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008	
amp/frq (%)	43.5	Inc. frq. avg.	0.147	Sample rate (MSamp/s):	128	Data rate (Mb/s):	2048	nlags: 256	t_cohere infinite	ion window (TEC)	0.00	0.00

t: az 321.4 el 38.0 pa 87.5 Z: az 82.1 el 73.9 pa -69.9 u,v (fr/asec) 9328.685 -393.290 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/c202b/v1/v1_3mm/1234/No0162/tZ..1IUDSP Output file: /Exps/c202b/v1/v1_3mm/1234/No0162/tZ.W.77.1IUDSP