

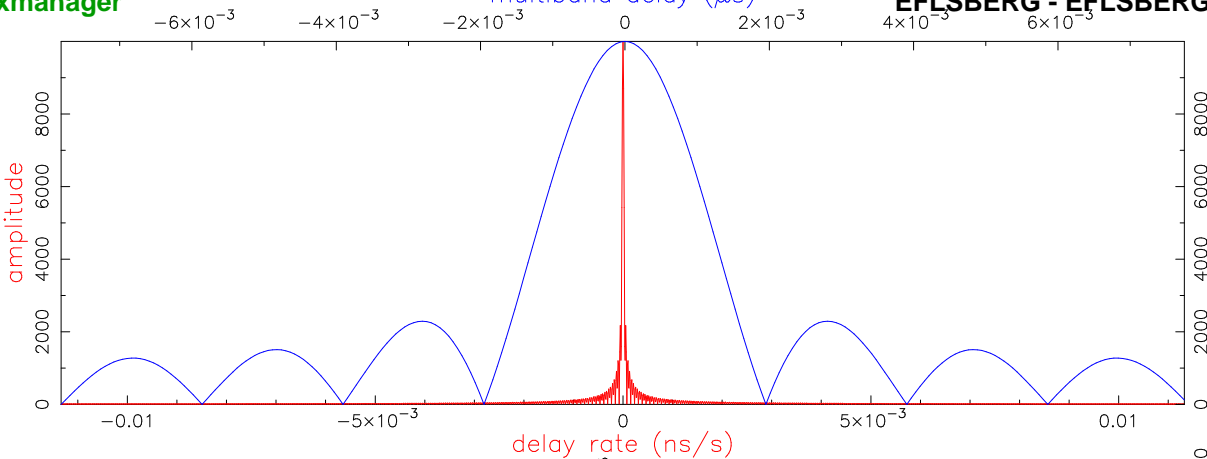
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, BB

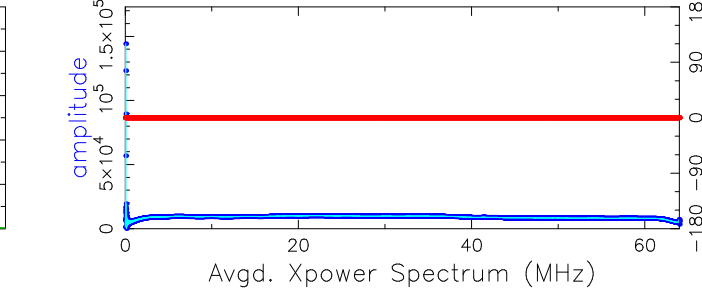
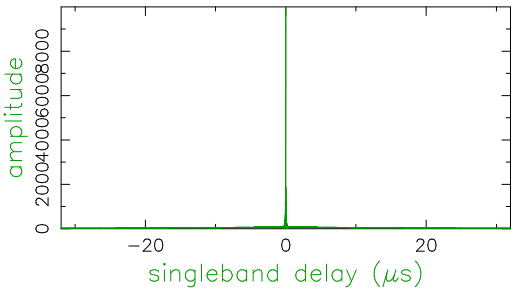
EFLSBERG - EFLSBERG, fgroup W, pol LL

multiband delay (μ s)



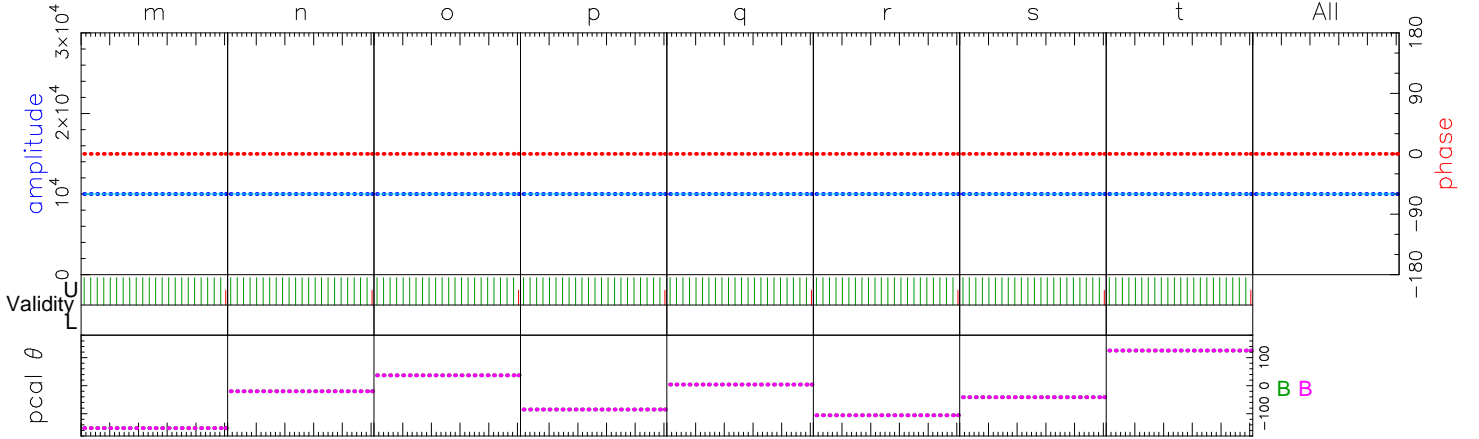
Fringe quality 9

SNR 473630.5
 Int time 299.974
 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. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:100341
 2023:348:201250
 RA & Dec (J2000) 22h02m43.291370s +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0	8193.0	8193.0
B	0	0	0	0	0	0	0	0	10000.0	10000.0
B:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Sbd box	8193.0
B:B	-151:-151	-20:-20	37:37	-85:-85	4:4	-106:-106	-41:-41	125:125	APs used	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC freqs	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Mani PC	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	PC amp	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
									Tracks	

Group delay (usec) (SBD)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.8E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	7.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	4.5E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 9999.999 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 B: az 284.5 el 47.2 pa 56.3 B: az 284.5 el 47.2 pa 56.3 u,v (fr/asec) 0.000 0.000 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//BB..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//BB.W.21.37F3IW

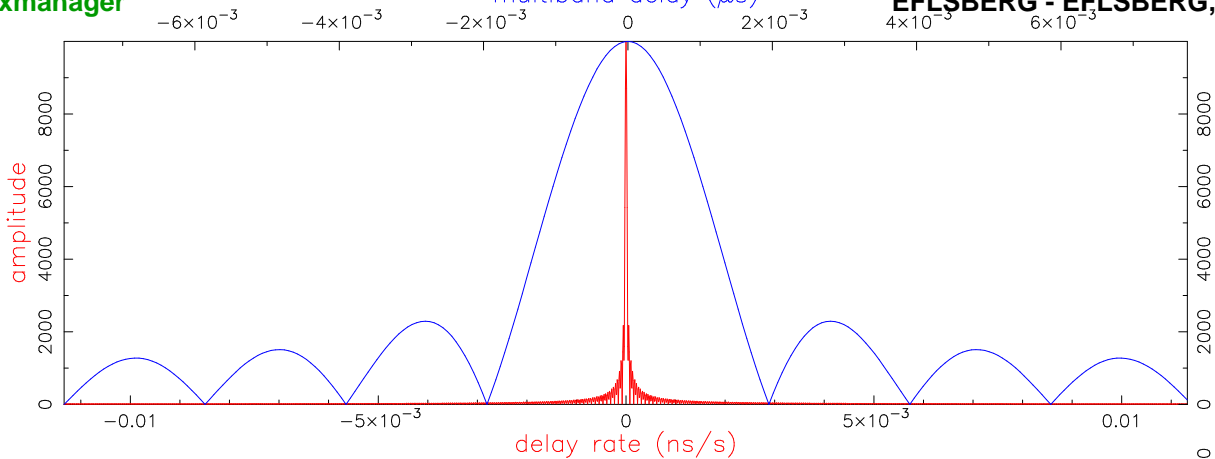
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, BB

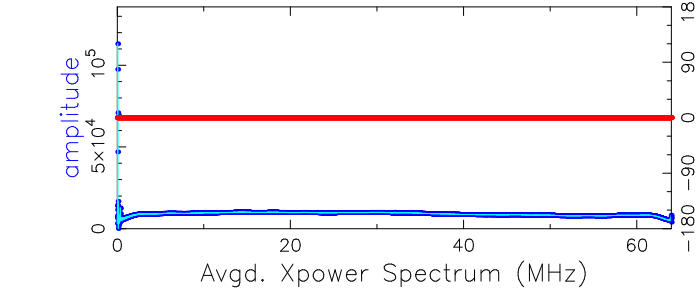
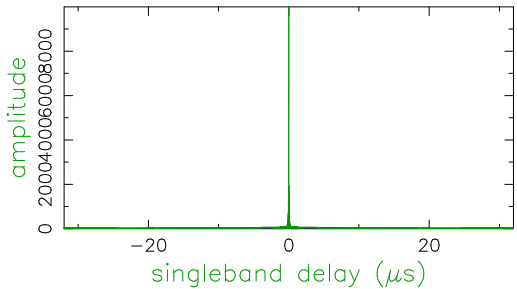
EFLSBERG - EFLSBERG, fgroup W, pol RR

multiband delay (μ s)



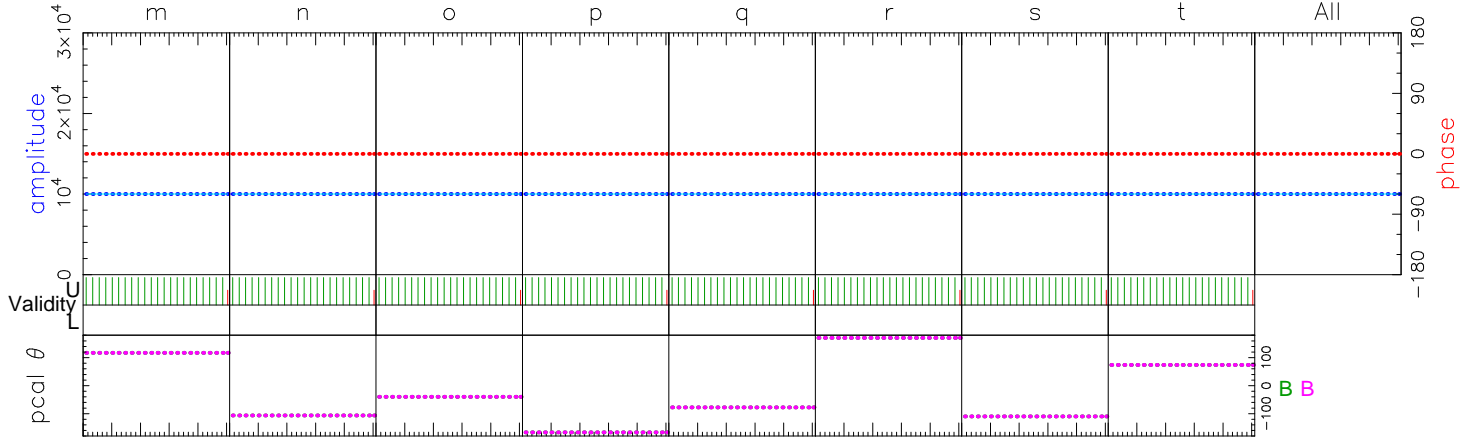
Fringe quality 9

SNR 473630.5
 Int time 299.974
 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. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:100459
 2023:348:201250
 RA & Dec (J2000) 22h02m43.291370s +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0	8193.0	8193.0
B	0	0	0	0	0	0	0	0	10000.0	10000.0
B:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	8193.0	8193.0
B:B	118:118	-106:-106	-40:-40	-167:-167	-77:-77	171:171	-110:-110	74:74	APs used	PC freqs
B	1000	1000	1000	1000	1000	1000	1000	1000	PC phase	Mani PC
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	Tracks
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	Tracks

Group delay (usec) (SBD)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.8E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	7.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	4.5E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.999 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 B: az 284.5 el 47.2 pa 56.3 B: az 284.5 el 47.2 pa 56.3 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BB..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BB.W.22.37F3IW simultaneous interpolator

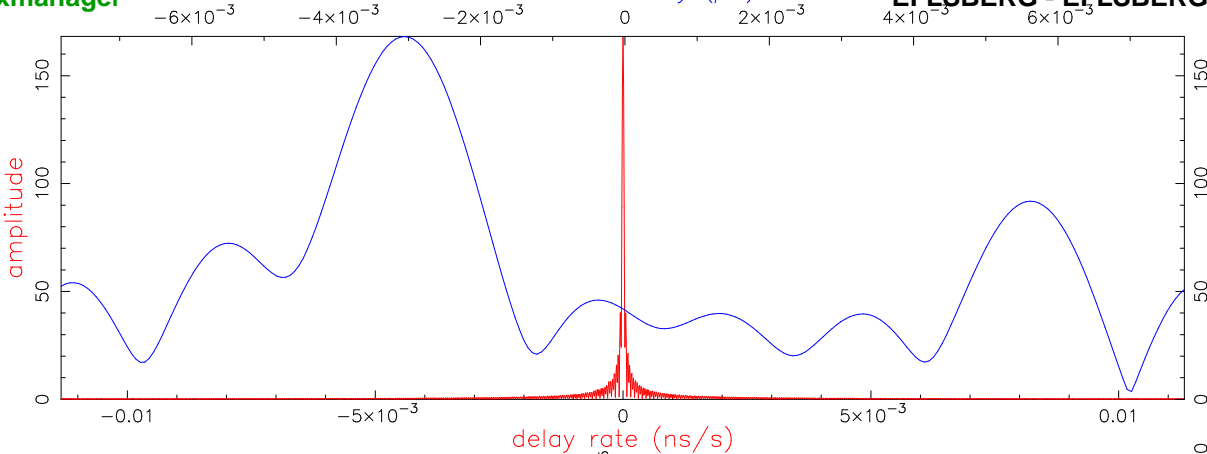
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

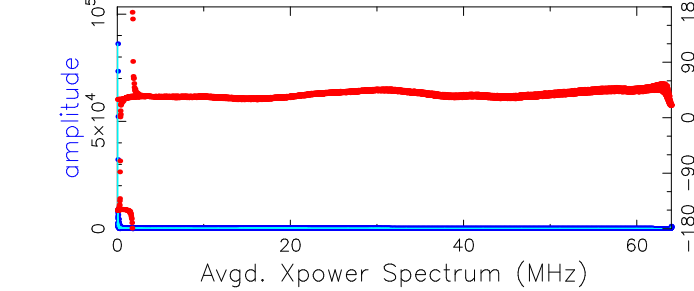
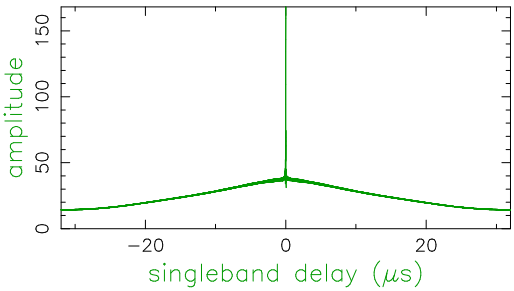
BLLAC.37F3IW, No0001, BB

EFLSBERG - EFLSBERG, fgroup W, pol LR

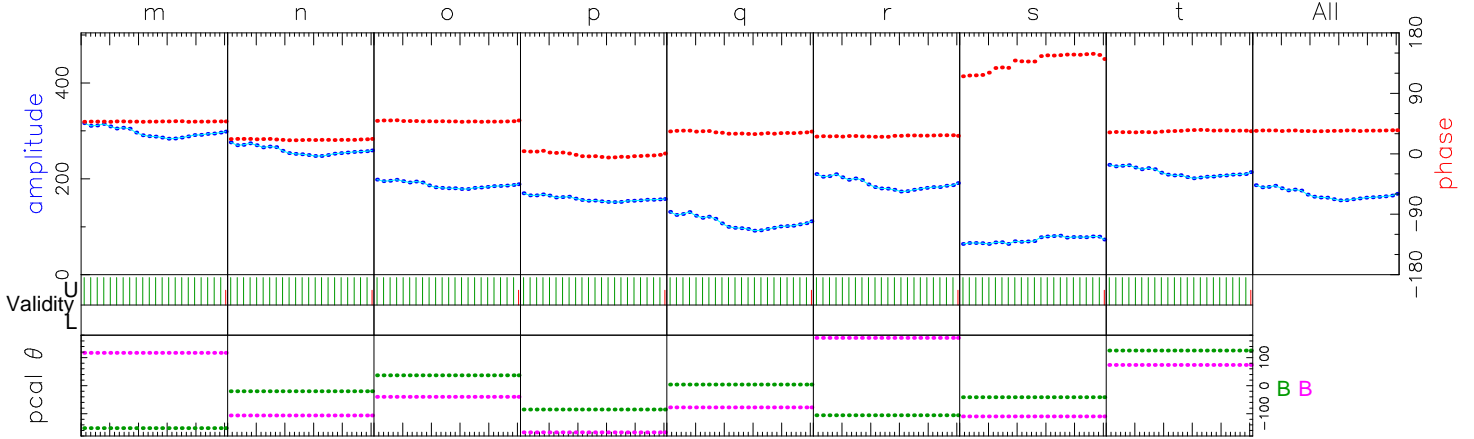
multiband delay (μ s)



Fringe quality 5
 Error code G
 SNR 7967.2
 Int time 299.974
 Amp 168.216
 Phase 34.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.003460
 MBD -0.003056
 Fringe rate (Hz)
 -0.000003
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:100617
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	47.9	21.2	48.5	-1.3	31.8	26.4	137.1	33.6	Phase	34.3
	297.3	259.3	187.3	158.2	108.5	189.2	71.1	213.3	Ampl.	185.5
	8192.6	8191.4	8191.7	8193.5	8191.0	8191.8	8189.4	8194.3	Sbd box	8192.1
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
B	0	0	0	0	0	0	0	0	PC freqs	
B:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:B	-151:118	-20:-106	37:-40	-85:-167	4:-77	-106:171	-41:-110	125:74	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-3.05628125000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	-3.05628E-03	+/-	1.4E-07
Sband delay (usec)	-3.46000000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	-3.46000E-03	+/-	1.1E-06
Phase delay (usec)	1.10693638375E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	1.10694E-06	+/-	4.6E-10
Delay rate (us/s)	-3.96792266967E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	-3.96792E-11	+/-	2.7E-12
Total phase (deg)	34.3	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	34.3	+/-	0.0

ph/seg (deg)	0.4	Theor.	Amplitude	168.216 +/- 0.021	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	6.1	0.0	Search (2048X32)	166.872	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000 32.000	
ph/frq (deg)	45.6	0.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	42.5	0.0	Inc. seg. avg.	168.132	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
			Inc. frq. avg.	185.524	Data rate(Mb/s):	2048	nlags: 8192 t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 284.5 el 47.2 pa 56.3 B: az 284.5 el 47.2 pa 56.3 u, v (fr/asec) 0.000 0.000 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BB..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BB.W.23.37F3IW

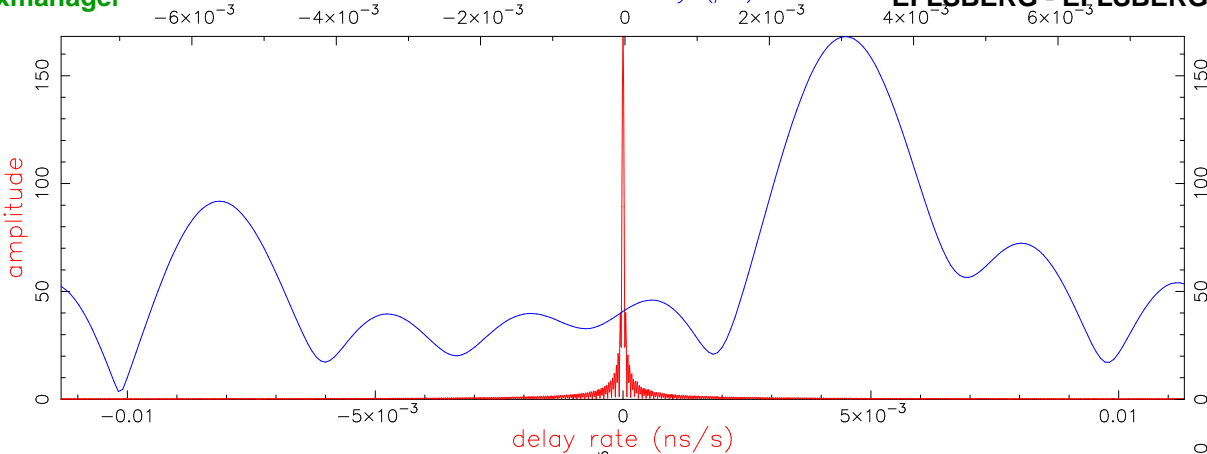
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

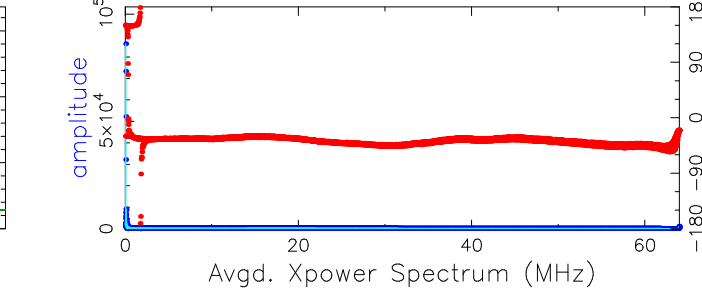
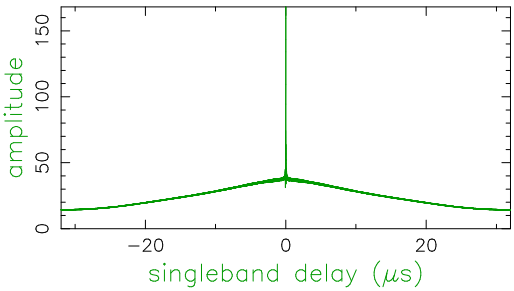
BLLAC.37F3IW, No0001, BB

EFLSBERG - EFLSBERG, fgroup W, pol RL

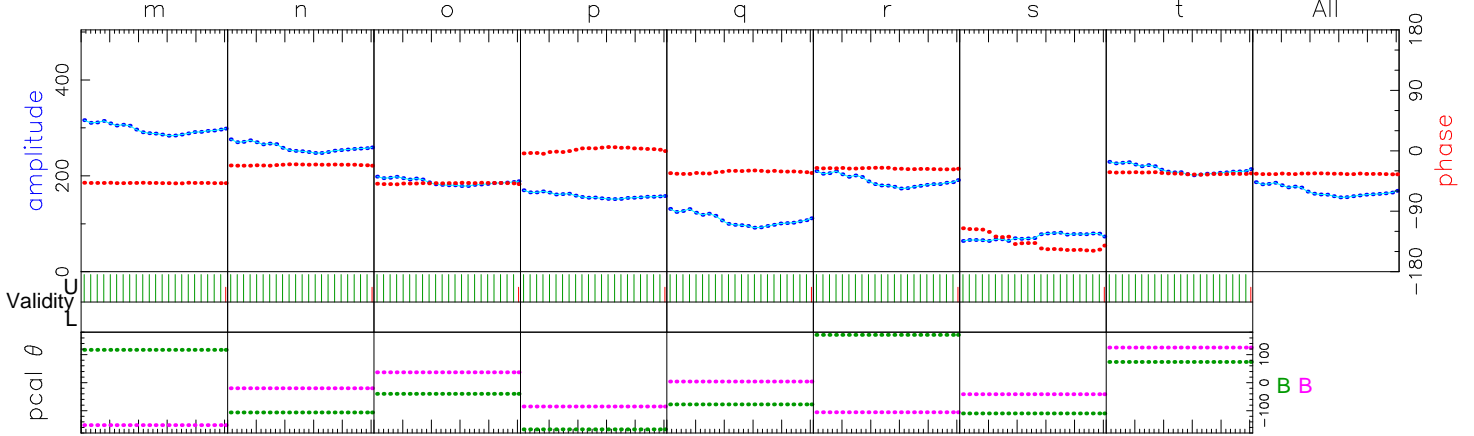
multiband delay (μ s)



Fringe quality 5
 Error code G
 SNR 7967.2
 Int time 299.974
 Amp 168.216
 Phase -34.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.003460
 MBD 0.003056
 Fringe rate (Hz)
 0.000003
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:100735
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec

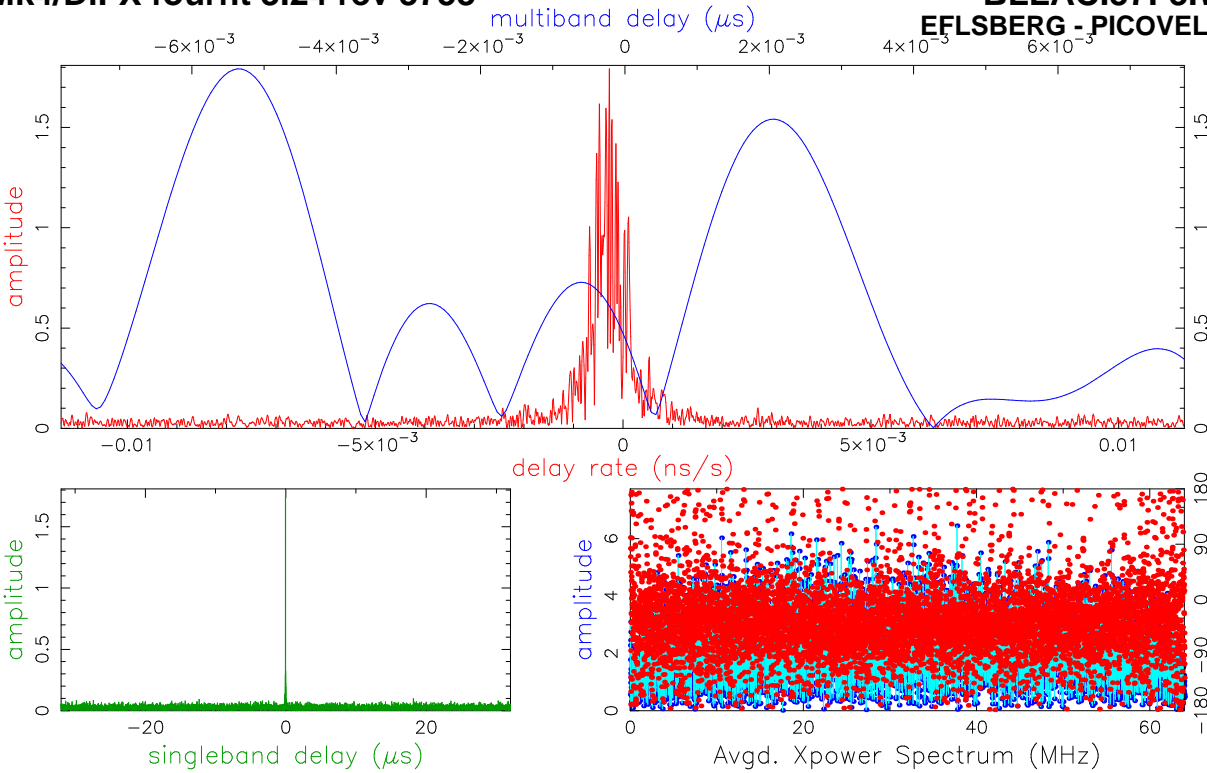


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-47.9	-21.2	-48.5	1.3	-31.8	-26.4	-137.1	-33.6	Phase	-34.3
	297.3	259.3	187.3	158.2	108.5	189.2	71.1	213.3	Ampl.	185.5
	8193.4	8194.6	8194.3	8192.5	8195.0	8194.2	8196.6	8191.7	Sbd box	8193.9
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
B	0	0	0	0	0	0	0	0	PC freqs	
B:B	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:B	118:-151	-106:-20	-40:37	-167:-85	-77:4	171:-106	-110:-41	74:125	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
B	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	3.05628125000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	3.05628E-03	+/-	1.4E-07
Sband delay (usec)	3.46000000000E-03	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	3.46000E-03	+/-	1.1E-06
Phase delay (usec)	-1.10693638382E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	-1.10694E-06	+/-	4.6E-10
Delay rate (us/s)	3.96792266967E-11	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	3.96792E-11	+/-	2.7E-12
Total phase (deg)		Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	-34.3	+/-	0.0

ph/seg (deg)	0.4	0.0	Search (2048X32)	166.872	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-32.000	32.000
amp/seg (%)	6.1	0.1	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	45.6	0.0	Inc. seg. avg.	168.132	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	42.5	0.0	Inc. frq. avg.	185.524	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00

B: az 284.5 el 47.2 pa 56.3 B: az 284.5 el 47.2 pa 56.3 u, v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BB..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BB.W.24.37F3IW

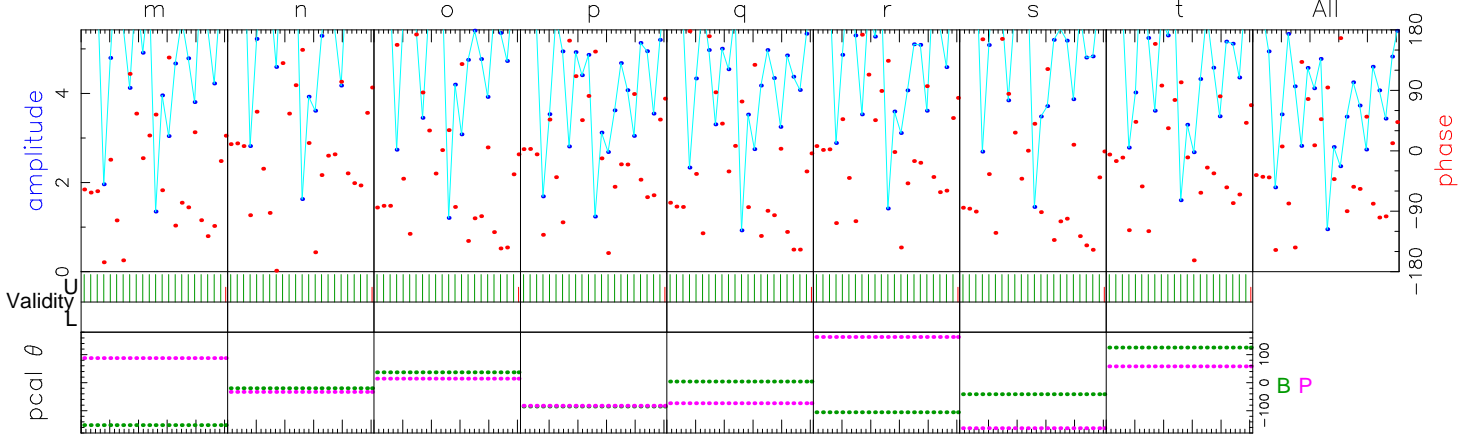


Fringe quality 2

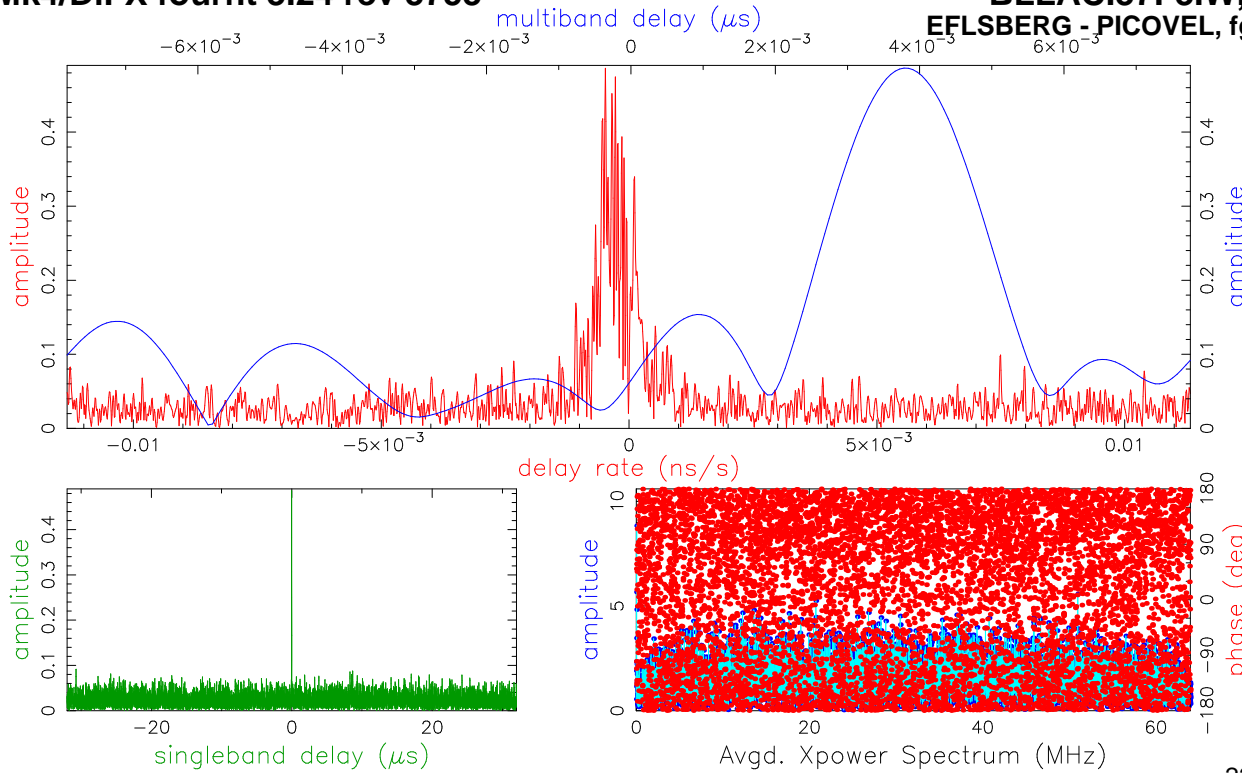
SNR 85.7
Int time 299.974
Amp 1.810
Phase -38.4
PFD 0.0e+00
Delays (us)
SBD -0.036440
MBD -0.005372
Fringe rate (Hz)
-0.023475
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. f241a
Yr:day 1234
2024:110:093036
2024:110:095556
2023:314:152938
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-60.3	10.9	-81.4	-2.8	-80.8	0.8	-86.2	-10.0	Phase	-38.4	
	2.4	2.7	2.5	1.9	2.0	2.4	2.4	2.2	Ampl.	2.3	
	8182.9	8184.0	8184.6	8185.2	8185.5	8184.6	8185.0	8183.6	Sbd box	8183.7	
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
P	0	0	0	0	0	0	0	0	PC freqs		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:P	-151:88	-20:-33	37:15	-85:-82	4:-74	-106:163	-41:-163	125:58	Manl PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Chan ids		
									Tracks		
Group delay (usec) (SBD)	-6.65285206265E+02		Apriori delay (usec)		-6.65248584288E+02		Resid mbdelay (usec)		-5.37198E-03	+/- 1.3E-05	
Sband delay (usec)	-6.65285024038E+02		Apriori clock (usec)		-3.4492264E+01		Resid sbdelay (usec)		-3.64398E-02	+/- 1.0E-04	
Phase delay (usec)	-6.65248585528E+02		Apriori clockrate (us/s)		9.9152023E-08		Resid phdelay (usec)		-1.23988E-06	+/- 4.3E-08	
Delay rate (us/s)	8.09979549838E-02		Apriori rate (us/s)		8.09982275099E-02		Resid rate (us/s)		-2.72526E-07	+/- 2.5E-10	
Total phase (deg)			Apriori accel (us/s/s)		1.62137719486E-05		Resid phase (deg)		-38.4	+/- 1.3	
RMS	80.5	3.2	Amplitude		1.810 +/- 0.021		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	133.4	5.6	Search (2048X32)		1.727		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-32.000 32.000	
amp/seg (%)	45.6	1.9	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	31.4	3.3	Inc. seg. avg.		3.890		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
amp/frq (%)			Inc. frq. avg.		2.327		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite	ion window (TEC)	0.00 0.00
B: az 284.5 el 47.2 pa 56.3	P: az 294.6 el 49.7 pa 79.1		u, v (fr/asec)		-605.521 2274.274				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/BP..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BP.W.14.37F3IW								

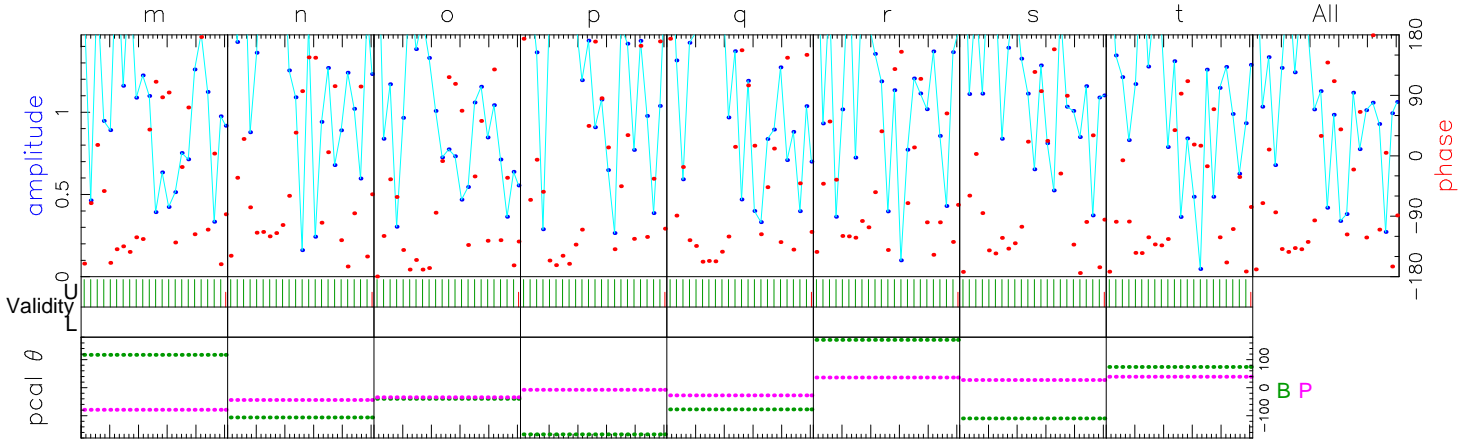


Fringe quality 9

SNR 23.2
Int time 299.974
Amp 0.490
Phase -128.7
PFD 0.0e+00
Delays (us)
SBD -0.020699
MBD 0.003769
Fringe rate (Hz)
-0.040649
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

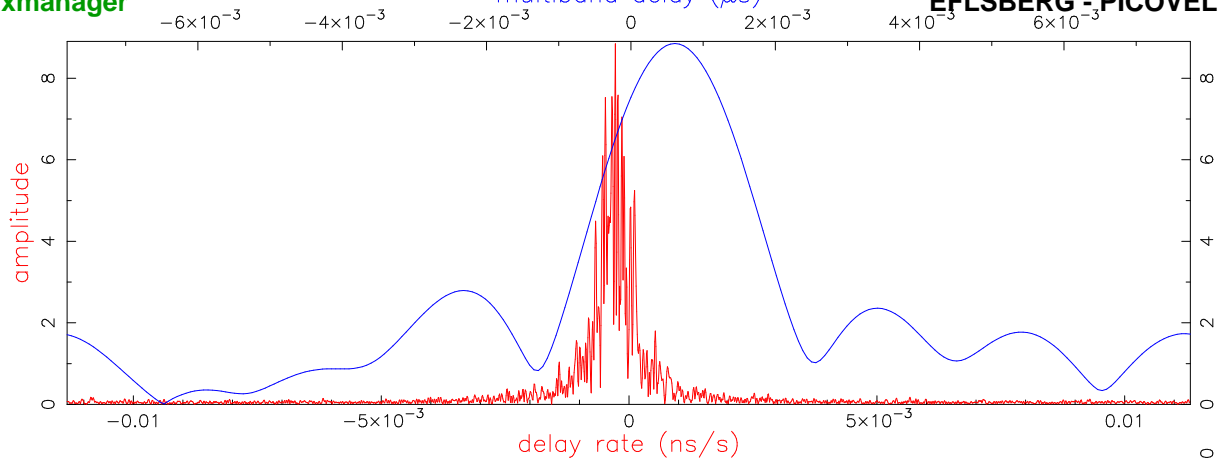
Exp. f241a
Exper # 1234
Yr:day 2024:109
Start 120000.00
Stop 120500.03
FRT 120230.00
Corr/FF/build
2024:110:093036
2024:110:095732
2023:314:152938
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



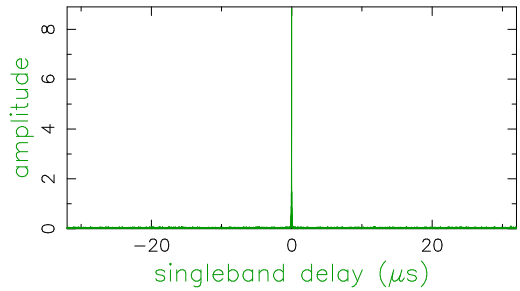
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-131.8	-107.6	-154.0	-143.1	-143.8	-103.4	-126.1	-124.3	Phase	-128.7	
	0.4	0.6	0.4	0.5	0.6	0.5	0.5	0.5	Ampl.	0.5	
	8185.5	8187.6	8187.2	8187.9	8188.9	8188.2	8188.6	8186.9	Sbd box	8187.7	
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
P	0	0	0	0	0	0	0	0	PC freqs		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:P	118:-79	-106:-44	-40:-34	-167:-8	-77:-28	171:36	-110:27	74:39	Mani PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	-6.65276064950E+02		Apriori delay (usec)		-6.65248584288E+02		Resid mbdelay (usec)		3.76934E-03	+/- 4.7E-05	
Sband delay (usec)	-6.65269283788E+02		Apriori clock (usec)		-3.4492264E+01		Resid sbdelay (usec)		-2.06995E-02	+/- 3.7E-04	
Phase delay (usec)	-6.65248588437E+02		Apriori clockrate (us/s)		9.9152023E-08		Resid phdelay (usec)		-4.14919E-06	+/- 1.6E-07	
Delay rate (us/s)	8.09977556177E-02		Apriori rate (us/s)		8.09982275099E-02		Resid rate (us/s)		-4.71892E-07	+/- 9.2E-10	
Total phase (deg)			Apriori accel (us/s/s)		1.62137719486E-05		Resid phase (deg)		-128.7	+/- 4.9	
	RMS	Theor.	Amplitude	0.490 +/- 0.021		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	85.9	11.8	Search (2048X32)	0.474		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-32.000	32.000	
amp/seg (%)	149.4	20.7	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	19.1	7.0	Inc. seg. avg.	1.034		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	13.2	12.2	Inc. frq. avg.	0.504		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite	ion window (TEC)	0.00	0.00
B: az 284.5 el 47.2 pa 56.3	P: az 294.6 el 49.7 pa 79.1		u, v (fr/asec) -605.521 2274.274						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/BP..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BP.W.18.37F3IW								

multiband delay (μ s)

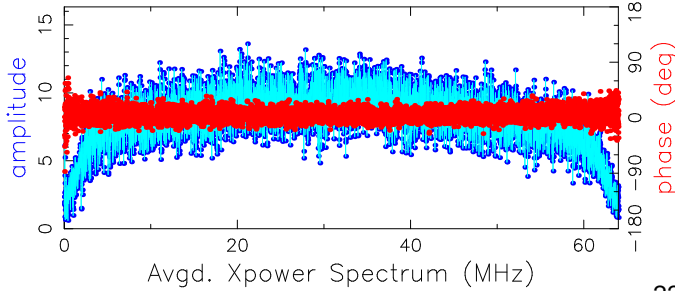


Fringe quality 4

SNR 421.7
 Int time 299.974
 Amp 8.905
 Phase 76.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.024463
 MBD 0.000582
 Fringe rate (Hz)
 -0.023501
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

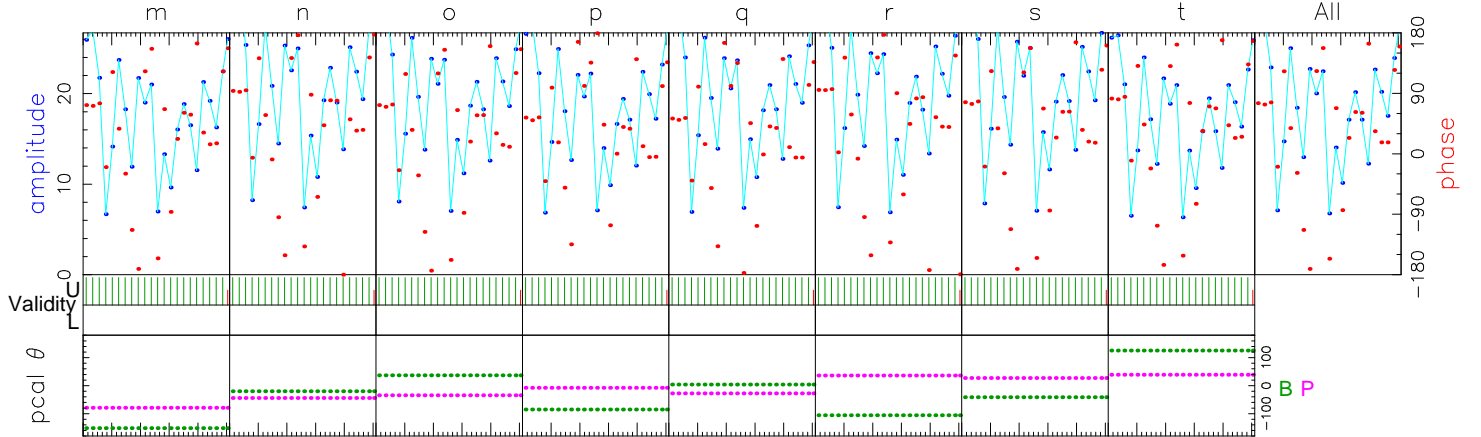


delay rate (ns/s)



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:101417
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	8185.4	8186.3	8186.9	8187.4	8187.6	8187.2	8187.2	8185.9	8186.7	
B	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:P	-151:-79	-20:-44	37:-34	-85:-8	4:-28	-106:36	-41:27	125:39		
B	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -6.65279252015E+02 Apriori delay (usec) -6.65248584288E+02 Resid mbdelay (usec) 5.82273E-04 +/- 2.6E-06
 Sband delay (usec) -6.65273046788E+02 Apriori clock (usec) -3.4492264E+01 Resid sbdelay (usec) -2.44625E-02 +/- 2.0E-05
 Phase delay (usec) -6.65248581809E+02 Apriori clockrate (us/s) 9.9152023E-08 Resid phdelay (usec) 2.47890E-06 +/- 8.8E-09
 Delay rate (us/s) 8.09979546890E-02 Apriori rate (us/s) 8.09982275099E-02 Resid rate (us/s) -2.72821E-07 +/- 5.1E-11
 Total phase (deg) 58.7 Apriori accel (us/s/s) 1.62137719486E-05 Resid phase (deg) 76.9 +/- 0.3

ph/seg (deg) RMS Theor. Amplitude 8.905 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 79.3 0.7 Search (2048X32) 8.488 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 127.8 1.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 7.3 0.7 Inc. seg. avg. 18.575 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Inc. frq. avg. 9.186 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 284.5 el 47.2 pa 56.3 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) -605.521 2274.274 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BP.W.29.37F3IW

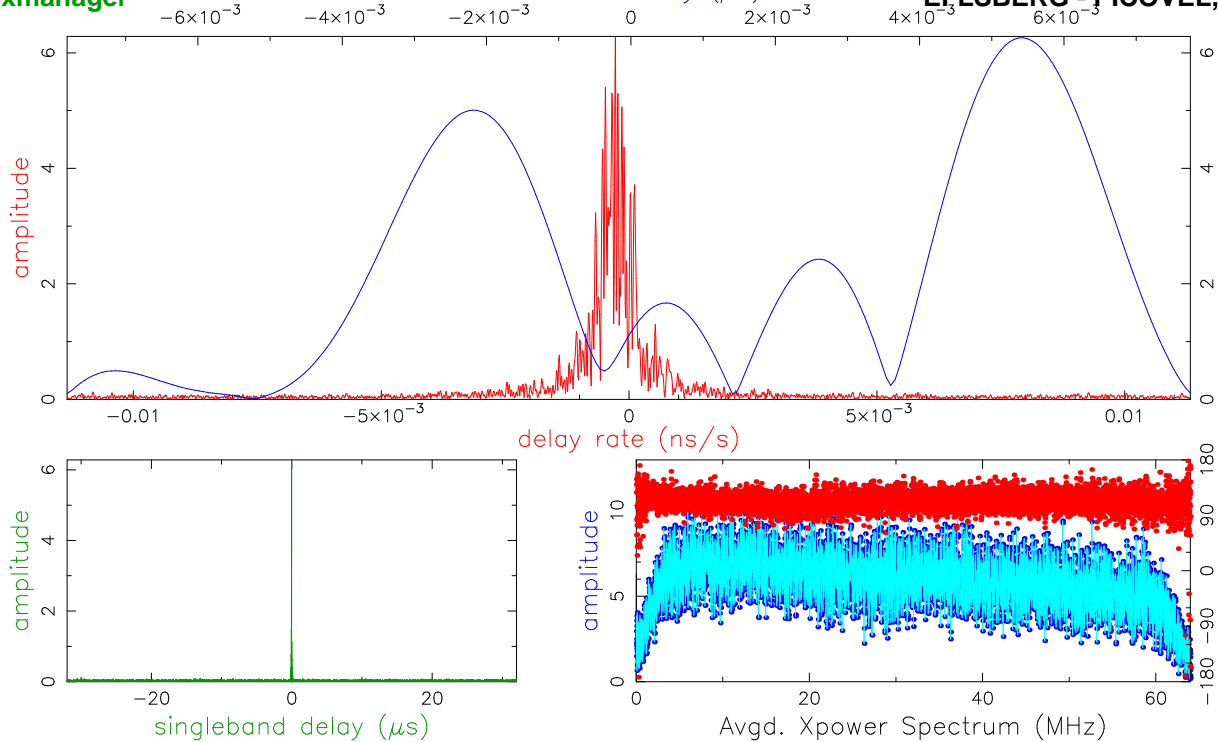
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No001, BP

EFLSBERG - PICOVEL, fgroup W, pol RR

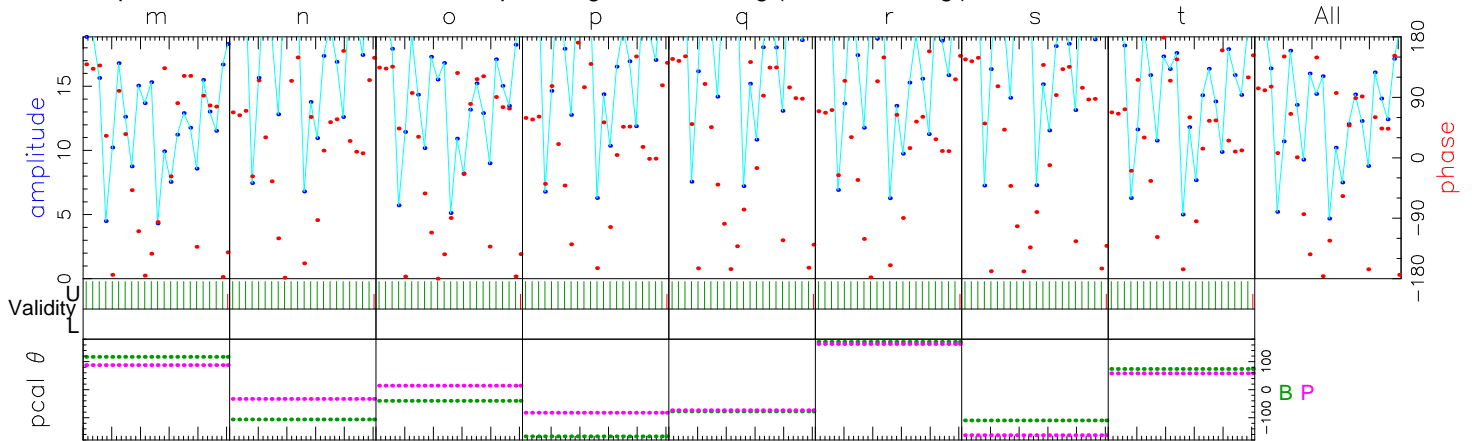
multiband delay (μ s)



Fringe quality 2

SNR 297.6
 Int time 299.974
 Amp 6.285
 Phase 104.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.026554
 MBD 0.005443
 Fringe rate (Hz)
 -0.023507
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:101538
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0		
B	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:P	118:88	-106:-33	-40:15	-167:-82	-77:-74	171:163	-110:-163	74:58		
B	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) -6.65274391297E+02 Apriori delay (usec) -6.65248584288E+02 Resid mbdelay (usec) 5.44299E-03 +/- 3.6E-06
 Sband delay (usec) -6.65275138038E+02 Apriori clock (usec) -3.4492264E+01 Resid sbdelay (usec) -2.65538E-02 +/- 2.9E-05
 Phase delay (usec) -6.65248580935E+02 Apriori clockrate (us/s) 9.9152023E-08 Resid phdelay (usec) 3.35271E-02 +/- 1.2E-08
 Delay rate (us/s) 8.09979546161E-02 Apriori rate (us/s) 8.09982275099E-02 Resid rate (us/s) -2.72894E-07 +/- 7.2E-11
 Total phase (deg) 85.8 Apriori accel (us/s/s) 1.62137719486E-05 Resid phase (deg) 104.0 +/- 0.4

ph/seg (deg) 80.2 0.9 Search (2048X32) 6.059 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 129.6 1.6 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 43.9 0.5 Inc. seg. avg. 13.253 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 33.4 1.0 Inc. frq. avg. 8.003 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 B: az 284.5 el 47.2 pa 56.3 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) -605.521 2274.274 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//BP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//BP.W.30.37F3IW

Mk4/DiFX fourfit 3.24 rev 3753

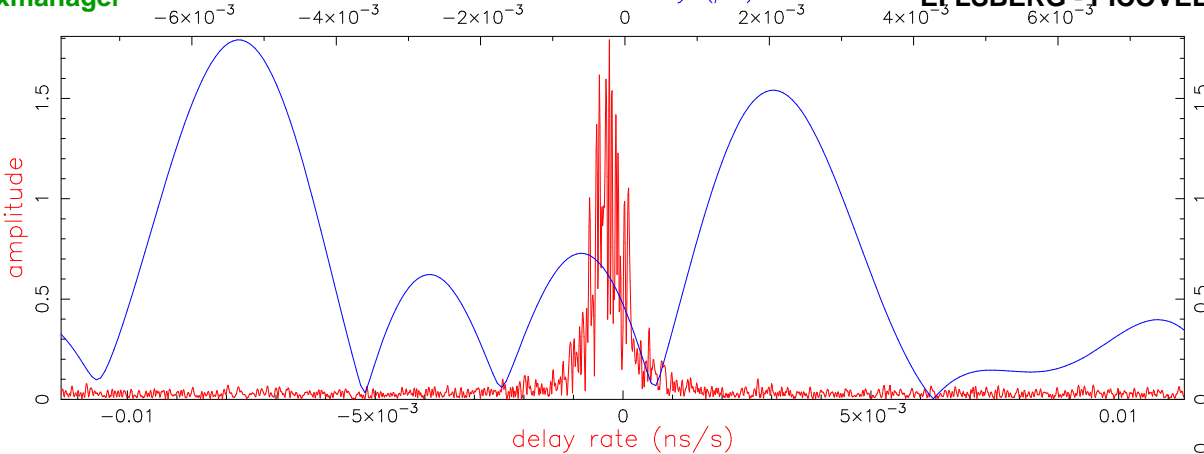
fxmanager

BLLAC.37F3IW, No001, BP

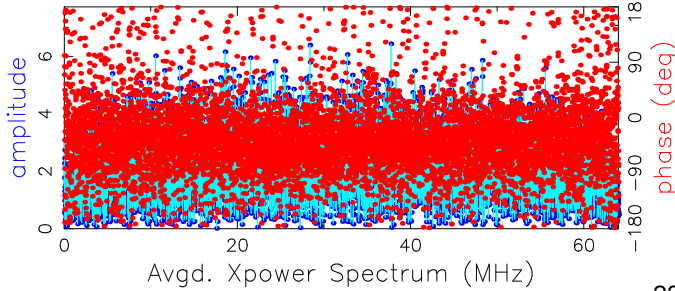
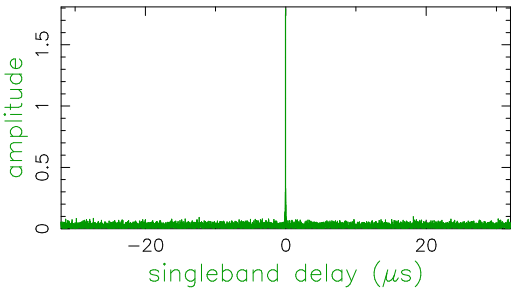
EFLSBERG - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

Fringe quality 2

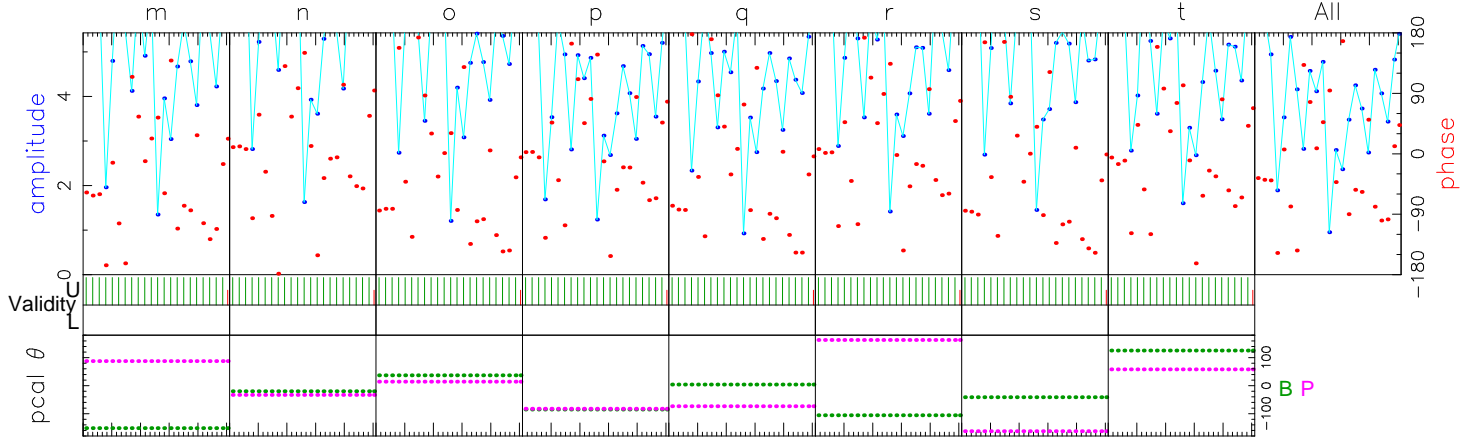


SNR 85.7
 Int time 299.974
 Amp 1.810
 Phase -38.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.036440
 MBD -0.005372
 Fringe rate (Hz)
 -0.023475
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. f241a
 Yr:day 1234
 Start 2024:109
 Stop 2024:109
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:101658
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-60.3	10.9	-81.4	-2.8	-80.8	0.8	-86.2	-10.0	Phase	-38.4
	2.4	2.7	2.5	1.9	2.0	2.4	2.4	2.2	Ampl.	2.3
	8182.9	8184.0	8184.6	8185.2	8185.5	8184.6	8185.0	8183.6	Sbd box	8183.7
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	-151:88	-20:-33	37:15	-85:-82	4:-74	-106:163	-41:-163	125:58	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	
									Tracks	
Group delay (usec) (SBD)	-6.65285206265E+02		Apriori delay (usec)		-6.65248584288E+02		Resid mbdelay (usec)		-5.37198E-03	+/- 1.3E-05
Sband delay (usec)	-6.65285024038E+02		Apriori clock (usec)		-3.4492264E+01		Resid sbdelay (usec)		-3.64398E-02	+/- 1.0E-04
Phase delay (usec)	-6.65248585528E+02		Apriori clockrate (us/s)		9.9152023E-08		Resid phdelay (usec)		-1.23988E-06	+/- 4.3E-08
Delay rate (us/s)	8.09979549838E-02		Apriori rate (us/s)		8.09982275099E-02		Resid rate (us/s)		-2.72526E-07	+/- 2.5E-10
Total phase (deg)			Apriori accel (us/s/s)		1.62137719486E-05		Resid phase (deg)		-38.4	+/- 1.3

ph/seg (deg) 80.5 3.2 Theor. Amplitude 1.810 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 133.4 5.6 Search (2048X32) 1.727 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 45.6 1.9 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 31.4 3.3 Inc. seg. avg. 3.890 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 B: az 284.5 el 47.2 pa 56.3 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) -605.521 2274.274 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0011/BP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0011/BP.W.31.37F3IW simultaneous interpolator

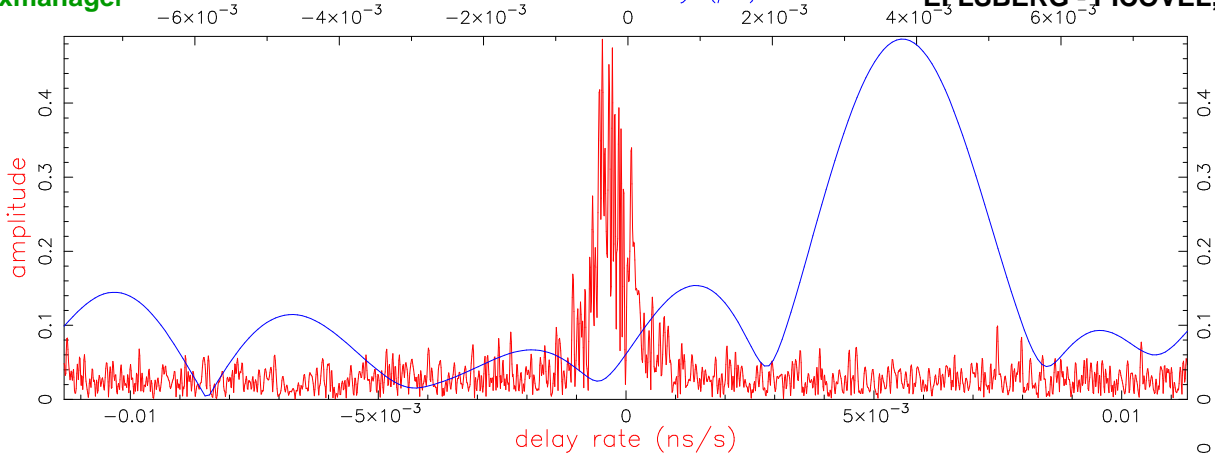
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, BP

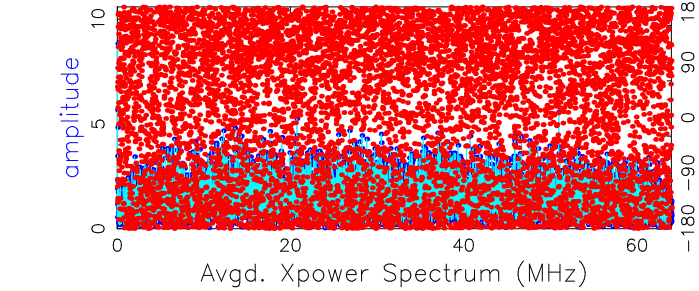
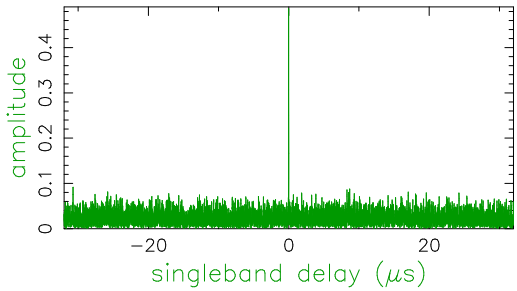
EFLSBERG - PICOVEL, fgroup W, pol RL

multiband delay (μ s)



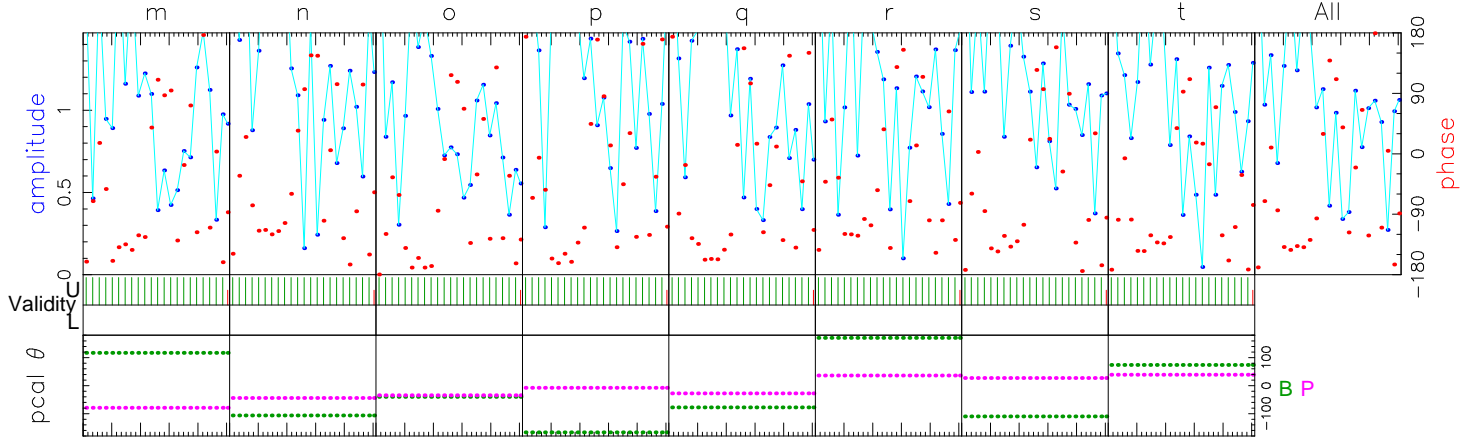
Fringe quality 9

SNR 23.2
 Int time 299.974
 Amp 0.490
 Phase -128.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.020699
 MBD 0.003769
 Fringe rate (Hz)
 -0.040649
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:101819
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



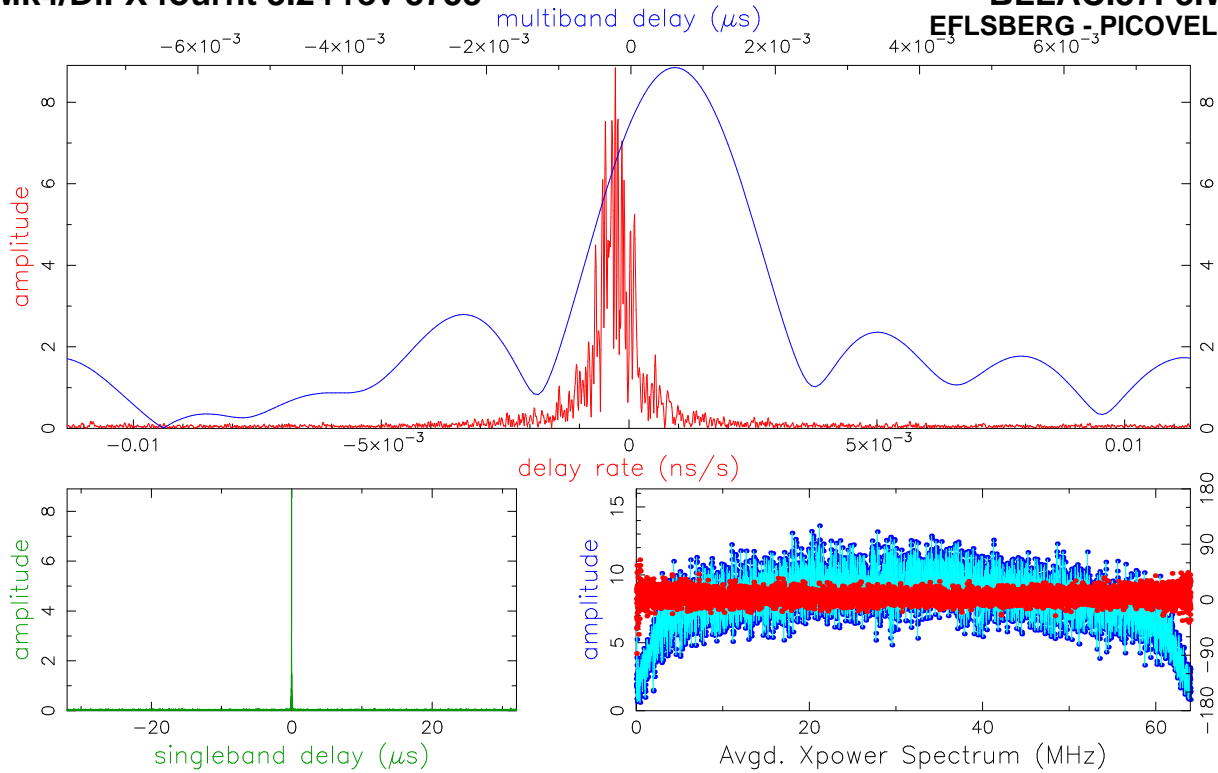
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-131.8	-107.6	-154.0	-143.1	-143.8	-103.4	-126.1	-124.3	Phase	-128.7
	0.4	0.6	0.4	0.5	0.6	0.5	0.5	0.5	Ampl.	0.5
	8185.5	8187.6	8187.2	8187.9	8188.9	8188.2	8188.6	8186.9	Sbd box	8187.7
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:P	118:-79	-106:-44	-40:-34	-167:-8	-77:-28	171:36	-110:27	74:39	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-6.65276064950E+02		Apriori delay (usec)		-6.65248584288E+02		Resid mbdelay (usec)		3.76934E-03	+/- 4.7E-05
Sband delay (usec)	-6.65269283788E+02		Apriori clock (usec)		-3.4492264E+01		Resid sbdelay (usec)		-2.06995E-02	+/- 3.7E-04
Phase delay (usec)	-6.65248588437E+02		Apriori clockrate (us/s)		9.9152023E-08		Resid phdelay (usec)		-4.14919E-06	+/- 1.6E-07
Delay rate (us/s)	8.09977556177E-02		Apriori rate (us/s)		8.09982275099E-02		Resid rate (us/s)		-4.71892E-07	+/- 9.2E-10
Total phase (deg)			Apriori accel (us/s/s)		1.62137719486E-05		Resid phase (deg)		-128.7	+/- 4.9

RMS Theor. Amplitude 0.490 +/- 0.021
 ph/seg (deg) 85.9 11.8 Search (2048X32) 0.474
 amp/seg (%) 149.4 20.7 Interp. 0.000
 ph/frq (deg) 19.1 7.0 Inc. seg. avg. 1.034
 amp/frq (%) 13.2 12.2 Inc. frq. avg. 0.504

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00

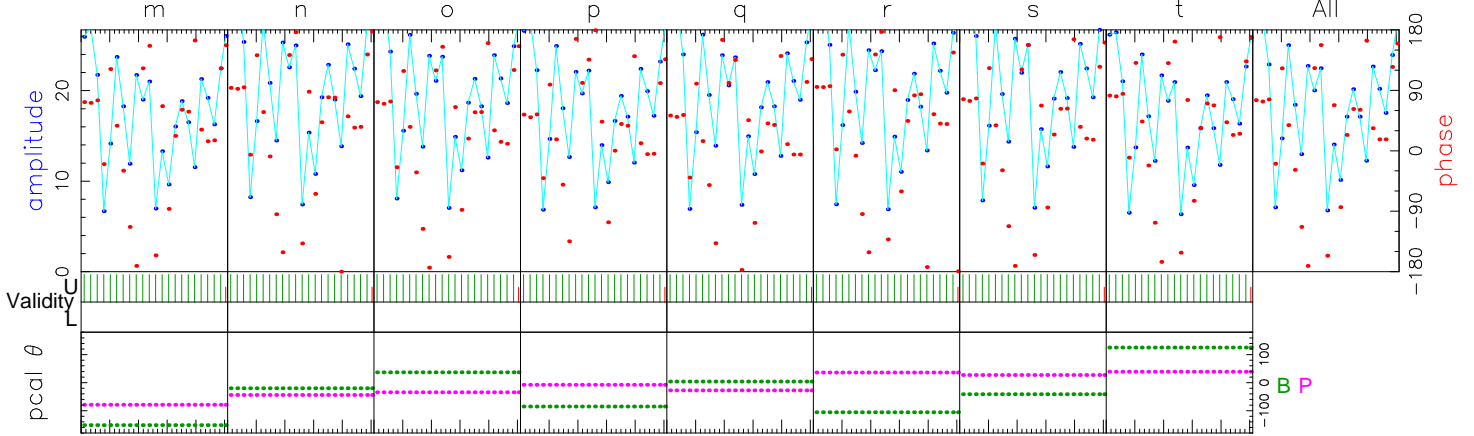
B: az 284.5 el 47.2 pa 56.3 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) -605.521 2274.274 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BP.W.32.37F3IW

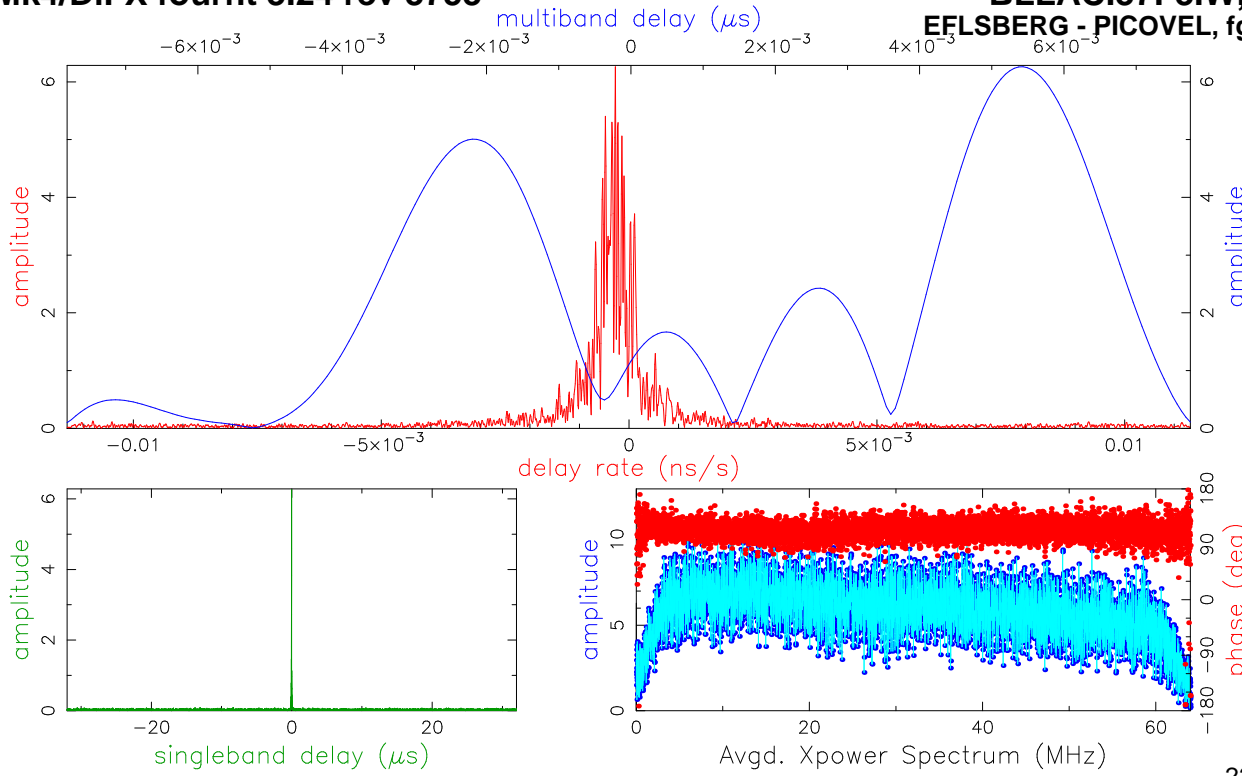


Fringe quality 4
 SNR 421.7
 Int time 299.974
 Amp 8.905
 Phase 76.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.024463
 MBD 0.000582
 Fringe rate (Hz)
 -0.023501
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:095239
 2023:314:152938
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	8185.4	8186.3	8186.9	8187.4	8187.6	8187.2	8187.2	8185.9	8186.7	8186.7
B	0	0	0	0	0	0	0	0	0	0
P	0	0	0	0	0	0	0	0	0	0
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
B:P	-151:-79	-20:-44	37:-34	-85:-8	4:-28	-106:36	-41:27	125:39	76.9	76.9
B	1000	1000	1000	1000	1000	1000	1000	1000	9.2	9.2
P	1000	1000	1000	1000	1000	1000	1000	1000	8186.7	8186.7
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Group delay (usec) (SBD)	-6.65279252015E+02		Apriori delay (usec)		-6.65248584288E+02		Resid mbdelay (usec)		5.82273E-04	+/- 2.6E-06
Sband delay (usec)	-6.65273046788E+02		Apriori clock (usec)		-3.4492264E+01		Resid sbdelay (usec)		-2.44625E-02	+/- 2.0E-05
Phase delay (usec)	-6.65248581809E+02		Apriori clockrate (us/s)		9.9152023E-08		Resid phdelay (usec)		-2.47890E-06	+/- 8.8E-09
Delay rate (us/s)	8.09979546890E-02		Apriori rate (us/s)		8.09982275099E-02		Resid rate (us/s)		-2.72821E-07	+/- 5.1E-11
Total phase (deg)	58.7		Apriori accel (us/s/s)		1.62137719486E-05		Resid phase (deg)		76.9	+/- 0.3
ph/seg (deg)	RMS 79.3	Theor. 0.7	Amplitude 8.905 +/- 0.021	Search (2048X32) 8.488	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-32.000 32.000
amp/seg (%)	127.8	1.1	Interp. 0.000	8.488	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	17.8	0.4	Inc. seg. avg. 18.575	9.186	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 8192 t_cohere infinite		dr window (ns/s)	-0.011 0.011
amp/frq (%)	7.3	0.7	Inc. frq. avg. 9.186	9.186	Data rate(Mb/s): 2048				ion window (TEC)	0.00 0.00
B: az 284.5 el 47.2 pa 56.3	P: az 294.6 el 49.7 pa 79.1		u,v (fr/asec) -605.521 2274.274						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/BP..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BP.W.4.37F3IW							

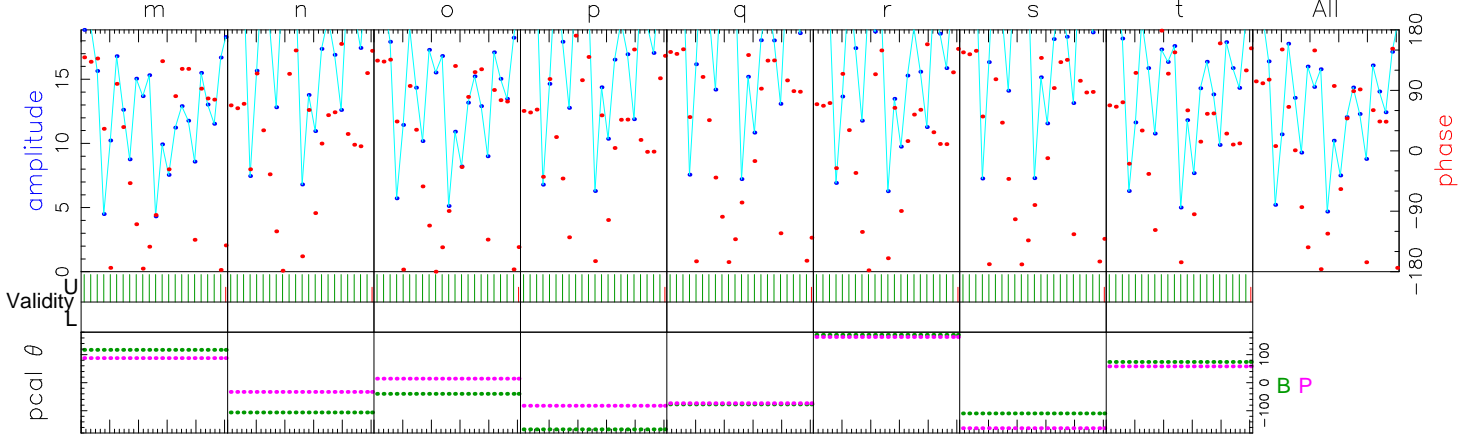


Fringe quality 2

SNR 297.6
Int time 299.974
Amp 6.285
Phase 104.0
PFD 0.0e+00
Delays (us)
SBD -0.026554
MBD 0.005443
Fringe rate (Hz)
-0.023507
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. f241a
Exper # 1234
Yr:day 2024:109
Start 120000.00
Stop 120500.03
FRT 120230.00
Corr/FF/build
2024:110:093036
2024:110:095419
2023:314:152938
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0		
B	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
B:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:P	118:88	-106:-33	-40:15	-167:-82	-77:-74	171:163	-110:-163	74:58		
B	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-6.65274391297E+02	Apriori delay (usec)	-6.65248584288E+02	Resid mbdelay (usec)	5.44299E-03	+/-	3.6E-06
Sband delay (usec)	-6.65275138038E+02	Apriori clock (usec)	-3.4492264E+01	Resid sbdelay (usec)	-2.65538E-02	+/-	2.9E-05
Phase delay (usec)	-6.65248580935E+02	Apriori clockrate (us/s)	9.9152023E-08	Resid phdelay (usec)	3.35271E-06	+/-	1.2E-08
Delay rate (us/s)	8.09979546161E-02	Apriori rate (us/s)	8.09982275099E-02	Resid rate (us/s)	-2.72894E-07	+/-	7.2E-11
Total phase (deg)		Apriori accel (us/s/s)	1.62137719486E-05	Resid phase (deg)	104.0	+/-	0.4

ph/seg (deg) 80.2 0.9
amp/seg (%) 129.6 1.6
ph/frq (deg) 43.9 0.5
amp/frq (%) 33.4 1.0

RMS Theor. Amplitude 6.285 +/- 0.021
Search (2048X32) 6.059
Interp. 0.000
Inc. seg. avg. 13.253
Inc. frq. avg. 8.003

Group delay (usec) (SBD) -6.65274391297E+02
Sband delay (usec) -6.65275138038E+02
Phase delay (usec) -6.65248580935E+02
Delay rate (us/s) 8.09979546161E-02
Total phase (deg) 85.8

Apriori delay (usec) -6.65248584288E+02
Apriori clock (usec) -3.4492264E+01
Apriori clockrate (us/s) 9.9152023E-08
Apriori rate (us/s) 8.09982275099E-02
Apriori accel (us/s/s) 1.62137719486E-05

Resid mbdelay (usec) 5.44299E-03
Resid sbdelay (usec) -2.65538E-02
Resid phdelay (usec) 3.35271E-06
Resid rate (us/s) -2.72894E-07
Resid phase (deg) 104.0

PCal mode: MANUAL, MANUAL PC period (AP's) 5, 5
PCal rate: 0.000E+00, 0.000E+00 (us/s)
Bits/sample: 2x2 SampCntNorm: enabled
Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us
Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite

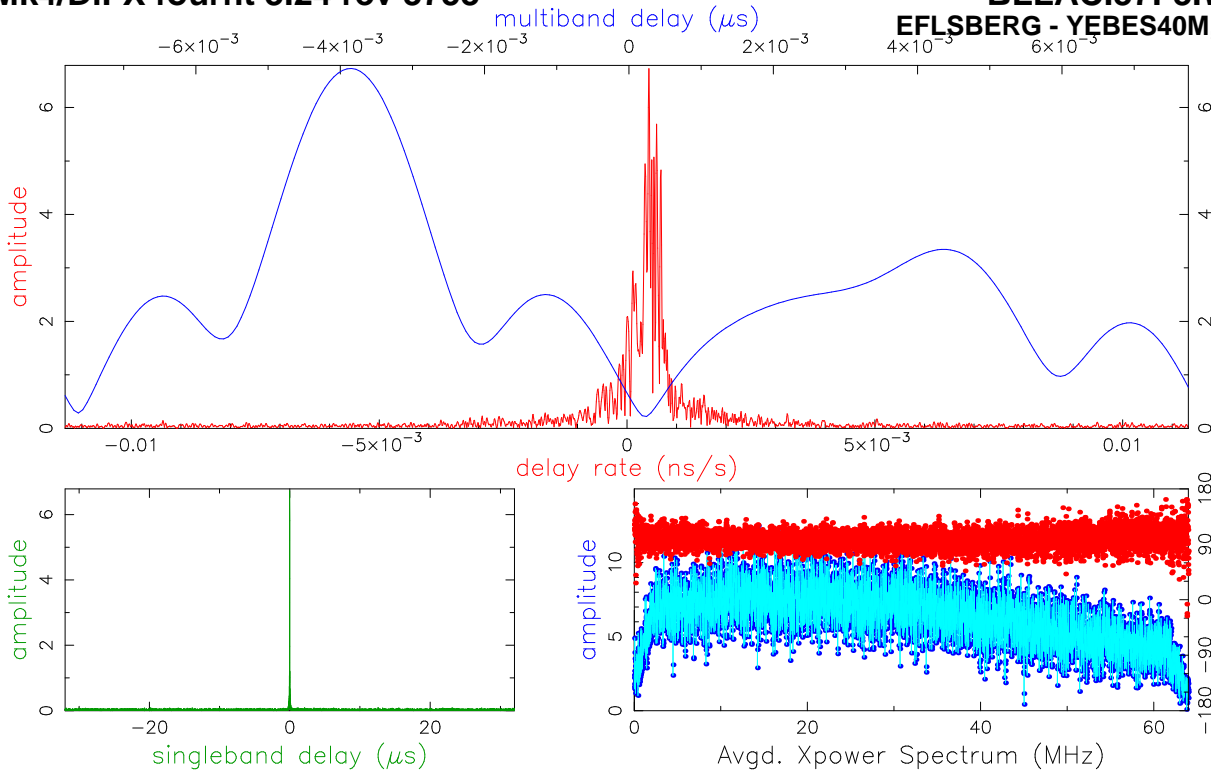
sb window (us) -32.000 32.000
mb window (us) -0.008 0.008
dr window (ns/s) -0.011 0.011
ion window (TEC) 0.00 0.00

B: az 284.5 el 47.2 pa 56.3 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) -605.521 2274.274 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BP.W.9.37F3IW

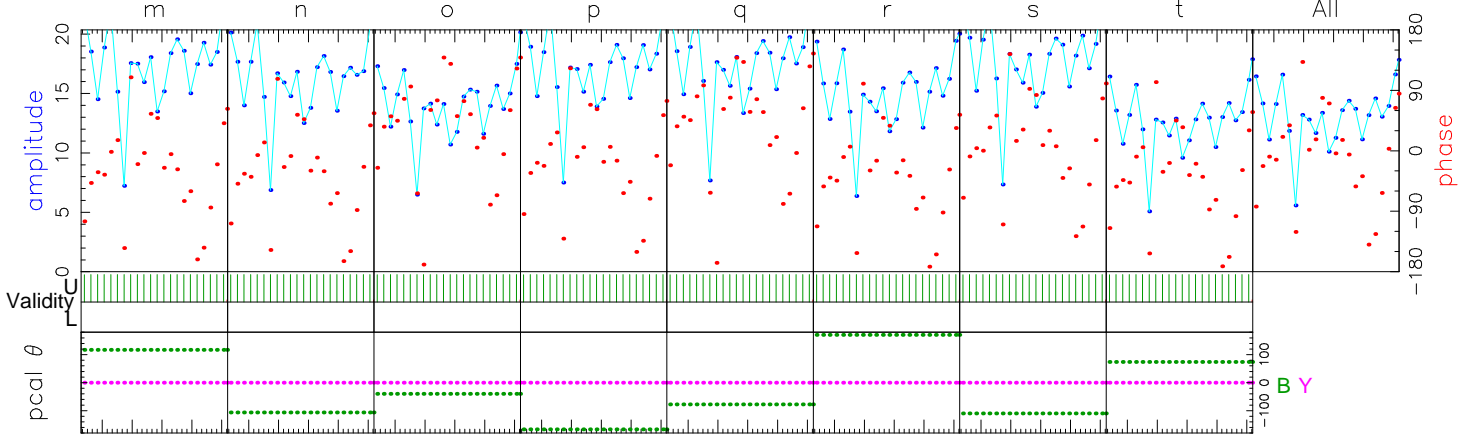
Mk4/DiFX fourfit 3.24 rev 3753

BLLAC.37F3IW, No0001, BY
EFLSBERG - YEBES40M, fgroup W, pol RR

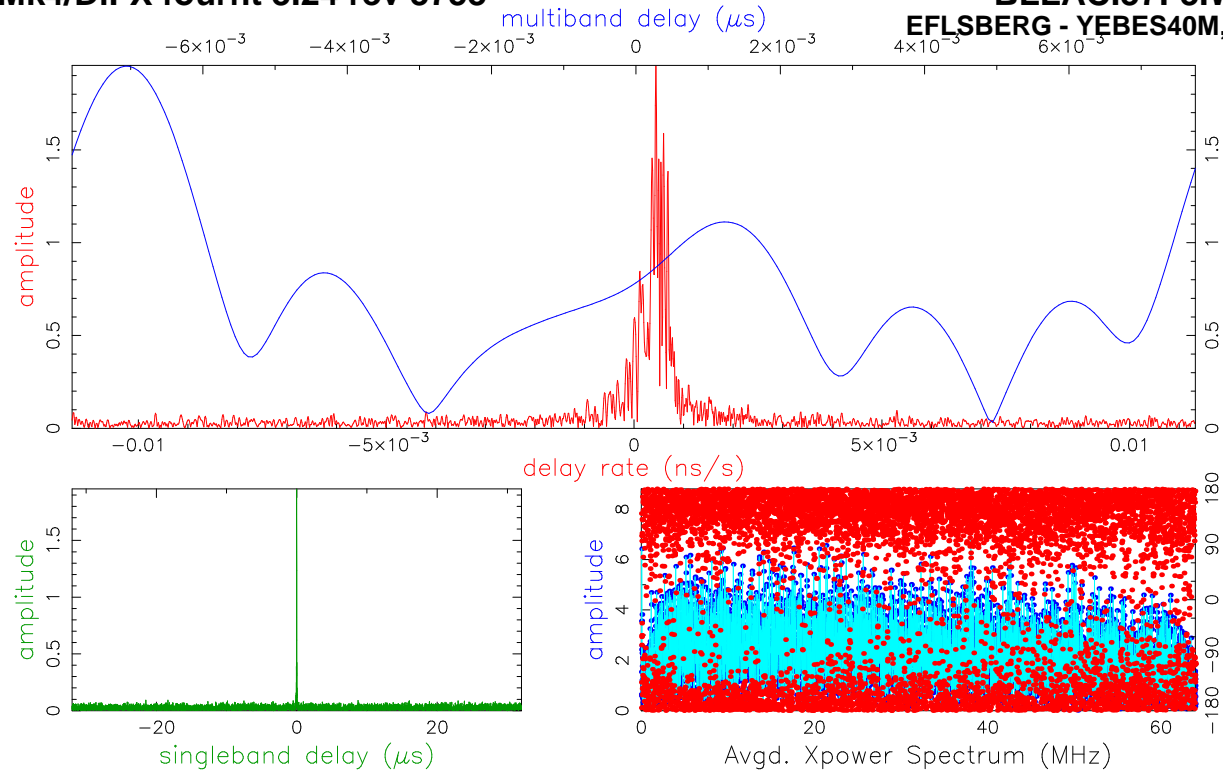


Fringe quality 2
 SNR 311.7
 Int time 282.284
 Amp 6.787
 Phase -5.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.012911
 MBD -0.003889
 Fringe rate (Hz) 0.038366
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:095610
 2023:314:152938
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec

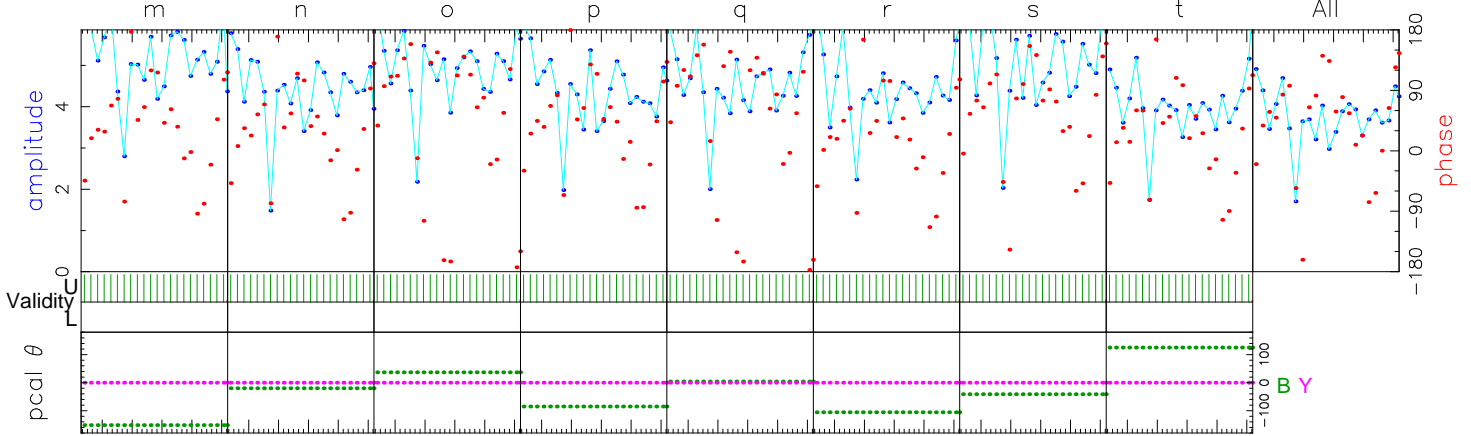


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-27.3	-30.4	52.4	-15.2	55.1	-35.8	8.5	-38.5	Phase	-5.2	
	9.1	8.4	7.2	8.9	9.0	7.7	9.1	6.5	Ampl.	8.2	
	8189.2	8188.9	8190.0	8189.4	8189.7	8189.3	8189.4	8188.0	Sbd box	8189.7	
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
Y	0	0	0	0	0	0	0	0	PC freqs		
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:Y	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-8.18891536042E+02		Apriori delay (usec)		-8.18872022335E+02		Resid mbdelay (usec)		-3.88871E-03	+/- 3.5E-06	
Sband delay (usec)	-8.18884933085E+02		Apriori clock (usec)		7.5252342E+01		Resid sbdelay (usec)		-1.29107E-02	+/- 2.8E-05	
Phase delay (usec)	-8.18872022502E+02		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		-1.67801E-07	+/- 1.2E-08	
Delay rate (us/s)	4.88462756233E-02		Apriori rate (us/s)		4.88458302317E-02		Resid rate (us/s)		4.45392E-07	+/- 7.3E-11	
Total phase (deg)			Apriori accel (us/s/s)		1.40499118327E-05		Resid phase (deg)		-5.2	+/- 0.4	
RMS	67.0	0.9	Amplitude		6.787 +/- 0.022		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	67.0	0.9	Search (2048X32)		6.658		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-32.000 32.000	
amp/seg (%)	98.7	1.5	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	41.7	0.5	Inc. seg. avg.		13.046		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
amp/frq (%)	25.1	0.9	Inc. frq. avg.		8.213		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite	ion window (TEC)	0.00 0.00
B: az 284.5 el 47.2 pa 56.3	Y: az 290.8 el 50.8 pa 74.0		u,v (fr/asec)		-359.493 1810.263				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/BY..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BY.W.15.37F3IW								

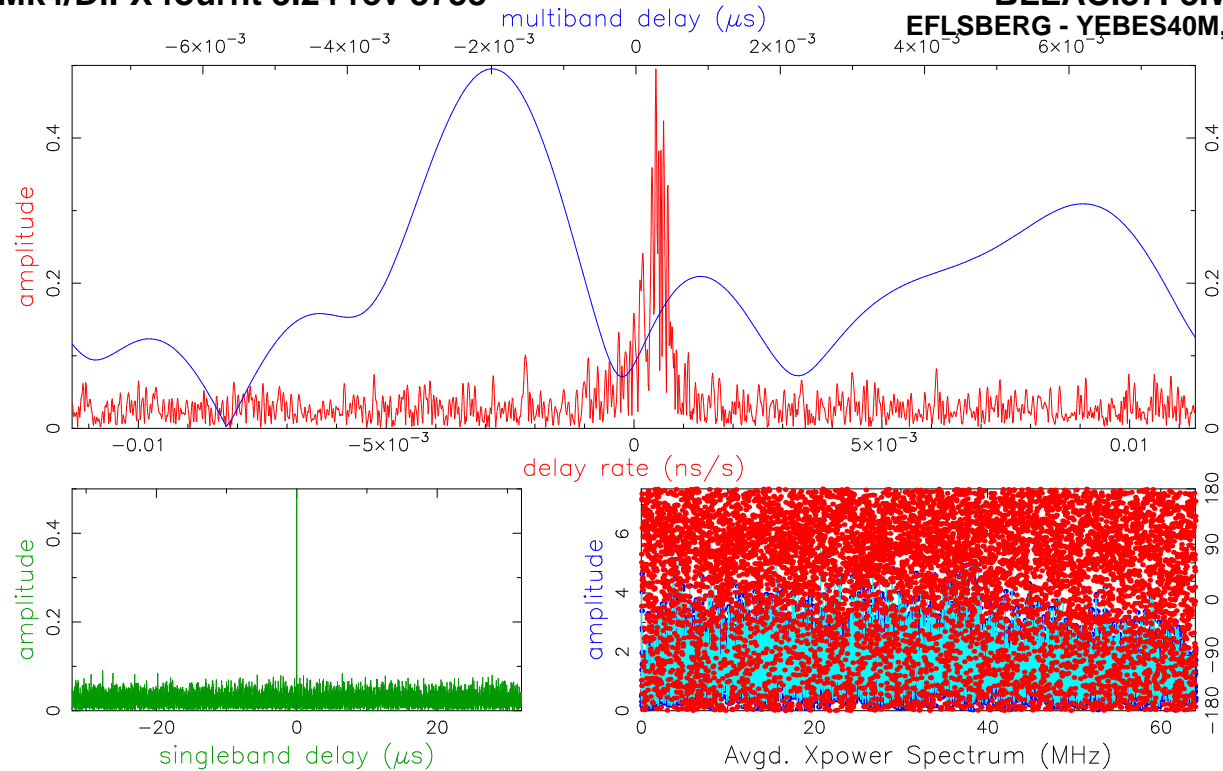


Fringe quality 2
 SNR 89.8
 Int time 282.284
 Amp 1.955
 Phase 56.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.016148
 MBD -0.007073
 Fringe rate (Hz)
 0.038409
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:095842
 2023:314:152938
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	36.5	28.9	116.3	41.6	118.0	20.8	73.9	27.5	Phase	56.5	
	2.7	2.4	2.5	2.3	2.4	2.3	2.8	2.2	Ampl.	2.4	
	8188.7	8187.7	8189.0	8188.9	8188.9	8188.3	8188.4	8187.4	Sbd box	8188.9	
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
Y	0	0	0	0	0	0	0	0	PC freqs		
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:Y	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000			
B	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)	-8.18894719980E+02		Apriori delay (usec)		-8.18872022335E+02		Resid mbdelay (usec)		-7.07265E-03	+/- 1.2E-05	
Sband delay (usec)	-8.18888170585E+02		Apriori clock (usec)		7.5252342E+01		Resid sbdelay (usec)		-1.61483E-02	+/- 9.6E-05	
Phase delay (usec)	-8.18872020511E+02		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		1.82342E-06	+/- 4.1E-08	
Delay rate (us/s)	4.88462761178E-02		Apriori rate (us/s)		4.88458302317E-02		Resid rate (us/s)		4.45886E-07	+/- 2.5E-10	
Total phase (deg)	55.1		Apriori accel (us/s/s)		1.40499118327E-05		Resid phase (deg)		56.5	+/- 1.3	
	RMS	Theor.	Amplitude	1.955 +/- 0.022		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	67.1	3.1	Search (2048X32)	1.887		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-32.000 32.000	
amp/seg (%)	97.2	5.3	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	43.1	1.8	Inc. seg. avg.	3.736		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	25.9	3.2	Inc. frq. avg.	2.424		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite		ion window (TEC)	0.00 0.00
B: az 284.5 el 47.2 pa 56.3	Y: az 290.8 el 50.8 pa 74.0		u, v (fr/asec)		-359.493 1810.263				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/BY..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BY.W.19.37F3IW								

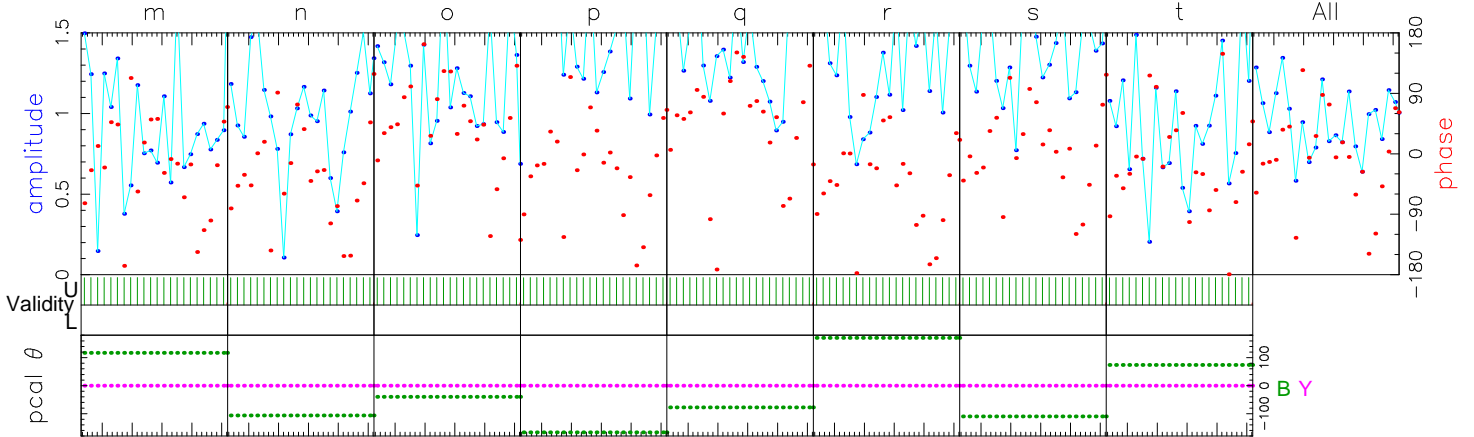


Fringe quality 8

SNR 23.0
Int time 282.284
Amp 0.500
Phase 2.6
PFD 0.0e+00
Delays (us)
SBD -0.010392
MBD -0.001958
Fringe rate (Hz) 0.038590
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. f241a
Exper # 1234
Yr:day 2024:109
Start 120017.41
Stop 120500.03
FRT 120230.00
Corr/FF/build
2024:110:093036
2024:110:100110
2023:314:152938
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-16.9	-31.6	61.5	-14.1	72.1	-41.9	8.0	-21.6	Phase	2.6	
	0.5	0.5	0.7	0.8	0.8	0.7	0.8	0.5	Ampl.	0.6	
	8189.3	8190.4	8190.7	8189.8	8190.3	8189.5	8190.1	8187.3	Sbd box	8190.3	
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
Y	0	0	0	0	0	0	0	0	PC freqs		
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:Y	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks		
									Tracks		
Group delay (usec) (SBD)	-8.18889604917E+02		Apriori delay (usec)		-8.18872022335E+02		Resid mbdelay (usec)		-1.95758E-03	+/- 4.7E-05	
Sband delay (usec)	-8.18882414085E+02		Apriori clock (usec)		7.5252342E+01		Resid sbdelay (usec)		-1.03918E-02	+/- 3.8E-04	
Phase delay (usec)	-8.18872022250E+02		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		8.48390E-08	+/- 1.6E-07	
Delay rate (us/s)	4.88462782251E-02		Apriori rate (us/s)		4.88458302317E-02		Resid rate (us/s)		4.47993E-07	+/- 9.9E-10	
Total phase (deg)	1.2		Apriori accel (us/s/s)		1.40499118327E-05		Resid phase (deg)		2.6	+/- 5.0	
	RMS	Theor.	Amplitude	0.500 +/- 0.022		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	67.6	12.0	Search (2048X32)	0.478		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-32.000	32.000	
amp/seg (%)	100.4	20.9	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	46.0	7.1	Inc. seg. avg.	0.941		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	38.0	12.3	Inc. frq. avg.	0.644		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite	ion window (TEC)	0.00	0.00
B: az 284.5 el 47.2 pa 56.3	Y: az 290.8 el 50.8 pa 74.0		u, v (fr/asec) -359.493 1810.263						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/BY..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BY.W.20.37F3IW								

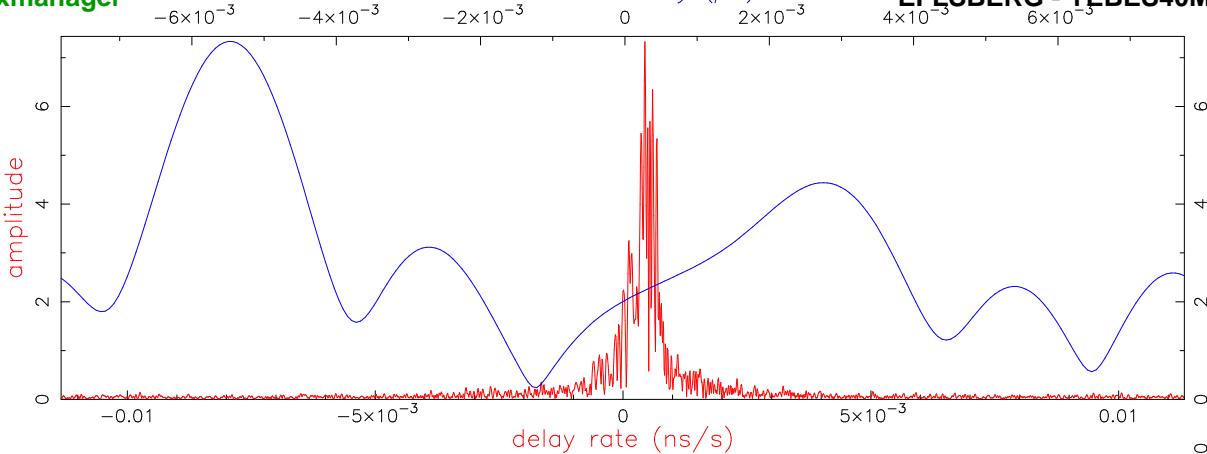
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, BY

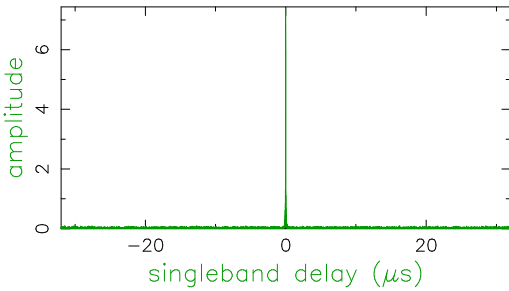
EFLSBERG - YEBES40M, fgroup W, pol LL

multiband delay (μ s)

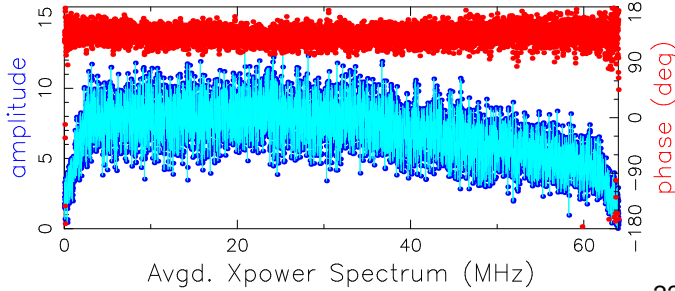


Fringe quality 2

SNR 341.5
 Int time 282.284
 Amp 7.436
 Phase 32.8
 PFD 0.0e+00
 Delays (us)
 SBD -0.014051
 MBD -0.005424
 Fringe rate (Hz)
 0.038393
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

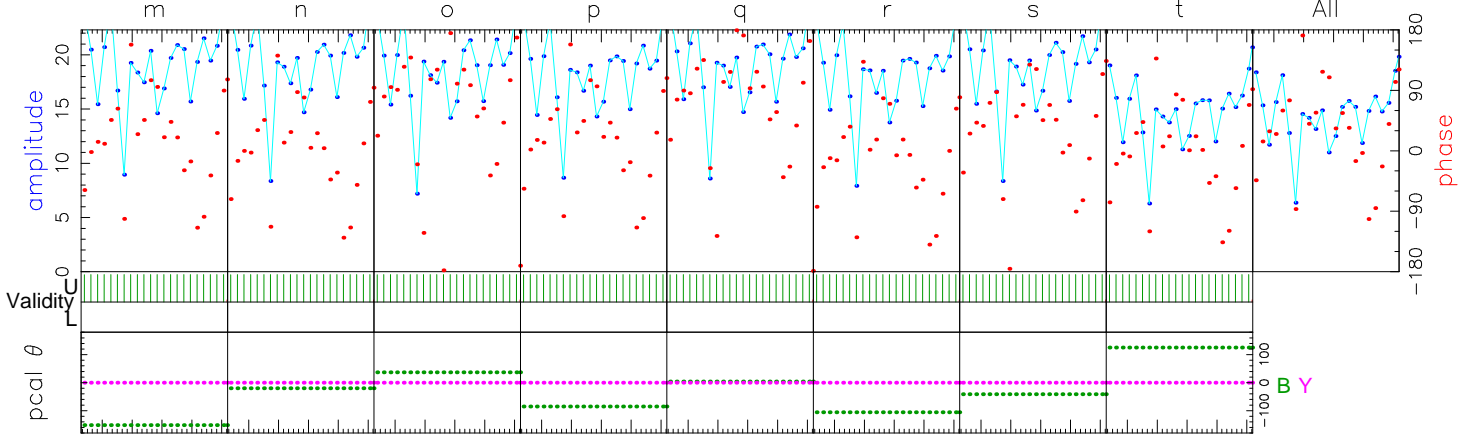


delay rate (ns/s)



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:103535
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	18.9	3.8	98.7	19.4	93.8	-6.6	44.7	-0.7	Phase	32.8
	9.7	9.9	9.6	9.3	9.7	9.3	9.7	7.5	Ampl.	9.3
	8189.2	8188.8	8189.2	8189.3	8189.3	8188.7	8188.9	8187.5	Sbd box	8189.4
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-8.18893071230E+02	Apriori delay (usec)	-8.18872022335E+02	Resid mbdelay (usec)	-5.42390E-03	+/-	3.2E-06
Sband delay (usec)	-8.18886073585E+02	Apriori clock (usec)	7.5252342E+01	Resid sbdelay (usec)	-1.40513E-02	+/-	2.5E-05
Phase delay (usec)	-8.18872021278E+02	Apriori clockrate (us/s)	5.9999998E-07	Resid phdelay (usec)	1.05681E-06	+/-	1.1E-08
Delay rate (us/s)	4.88462759329E-02	Apriori rate (us/s)	4.88458302317E-02	Resid rate (us/s)	4.45701E-07	+/-	6.6E-11
Total phase (deg)		Apriori accel (us/s/s)	1.40499118327E-05	Resid phase (deg)	32.8	+/-	0.3

ph/seg (deg)	RMS 67.6	Theor. 0.8	Amplitude 7.436 +/- 0.022	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	
amp/seg (%)	100.5	1.4	Search (2048X32) 7.161	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -32.000 32.000	
ph/frq (deg)	44.9	0.5	Inc. seg. avg. 14.413	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us) -0.008 0.008
amp/frq (%)	27.3	0.8	Inc. frq. avg. 9.338	Data rate(Mb/s): 2048	nlags: 8192 t_cohere infinite	dr window (ns/s) -0.011 0.011
				Data rate(Mb/s): 2048	ion window (TEC) 0.00 0.00	

B: az 284.5 el 47.2 pa 56.3 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) -359.493 1810.263 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//BY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//BY.W.45.37F3IW

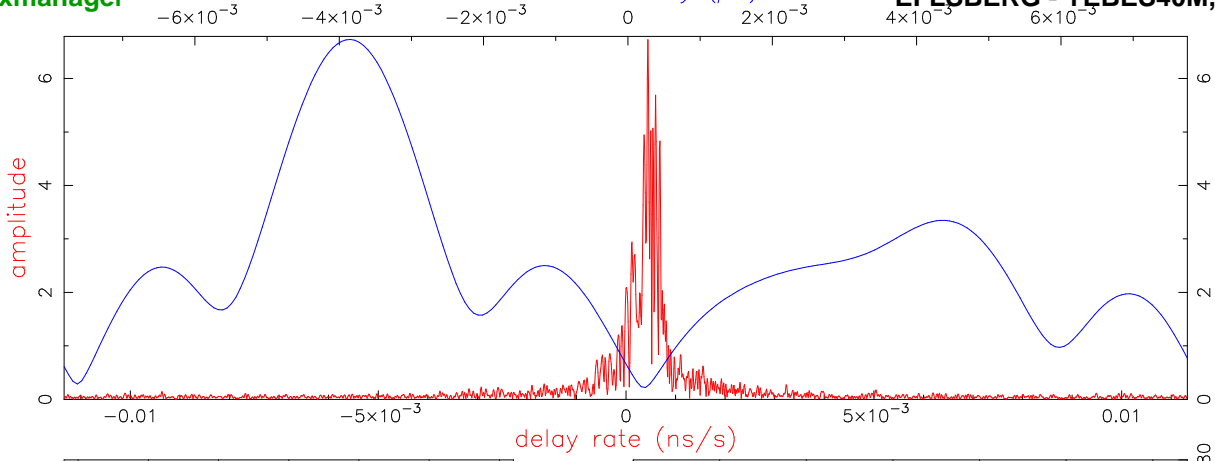
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, BY

EFLSBERG - YEBES40M, fgroup W, pol RR

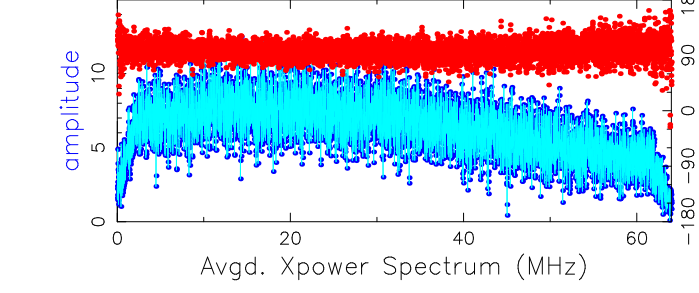
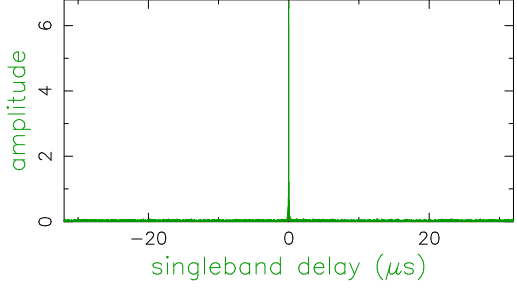
multiband delay (μ s)



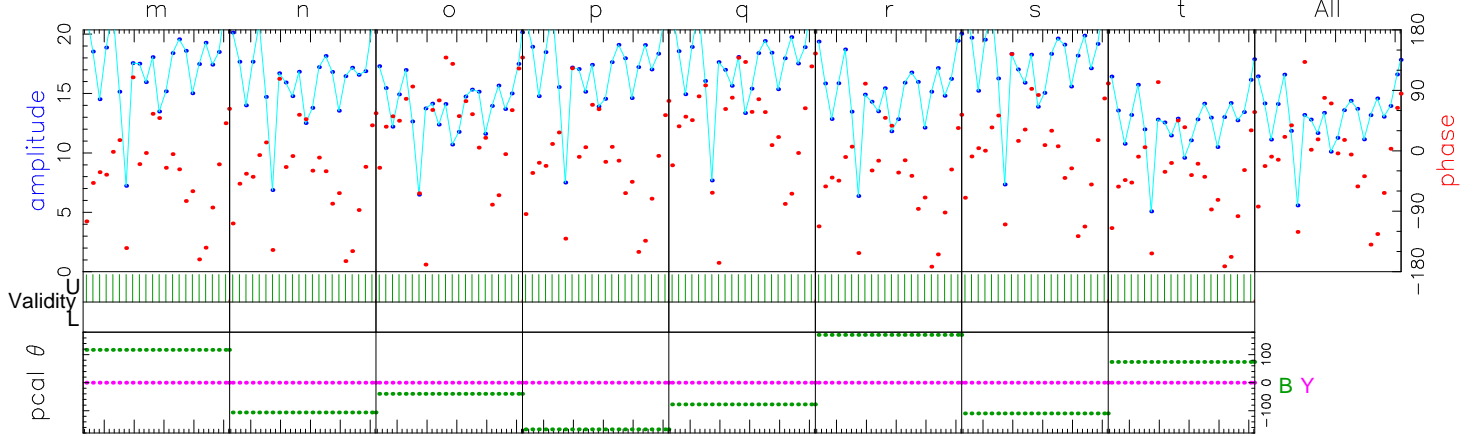
Fringe quality 2

SNR 311.7
 Int time 282.284
 Amp 6.787
 Phase -5.2
 PFD 0.0e+00
 Delays (us)
 SBD -0.012911
 MBD -0.003889
 Fringe rate (Hz) 0.038366
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:103656
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-27.3	-30.4	52.4	-15.2	55.1	-35.8	8.5	-38.5	Phase	-5.2
	9.1	8.4	7.2	8.9	9.0	7.7	9.1	6.5	Ampl.	8.2
	8189.2	8188.9	8190.0	8189.4	8189.7	8189.3	8189.4	8188.0	Sbd box	8189.7
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-8.18891536042E+02	Apriori delay (usec)	-8.18872022335E+02	Resid mbdelay (usec)	-3.88871E-03	+/-	3.5E-06
Sband delay (usec)	-8.18884933085E+02	Apriori clock (usec)	7.5252342E+01	Resid sbdelay (usec)	-1.29107E-02	+/-	2.8E-05
Phase delay (usec)	-8.18872022502E+02	Apriori clockrate (us/s)	5.9999998E-07	Resid phdelay (usec)	-1.67801E-07	+/-	1.2E-08
Delay rate (us/s)	4.88462756233E-02	Apriori rate (us/s)	4.88458302317E-02	Resid rate (us/s)	4.45392E-07	+/-	7.3E-11
Total phase (deg)	-6.6	Apriori accel (us/s/s)	1.40499118327E-05	Resid phase (deg)	-5.2	+/-	0.4

ph/seg (deg)	67.0	0.9	Search (2048X32)	6.658	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-32.000	32.000
amp/seg (%)	98.7	1.5	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		mb window (us)	-0.008	0.008
ph/frq (deg)	41.7	0.5	Inc. seg. avg.	13.046	Bits/sample: 2x2	SampCntNorm: enabled	dr window (ns/s)	-0.011	0.011
amp/frq (%)	25.1	0.9	Inc. frq. avg.	8.213	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		ion window (TEC)	0.00	0.00
					Data rate(Mb/s): 2048	nlags: 8192 t_cohere infinite			

B: az 284.5 el 47.2 pa 56.3 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) -359.493 1810.263 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BY...37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BY.W.46.37F3IW

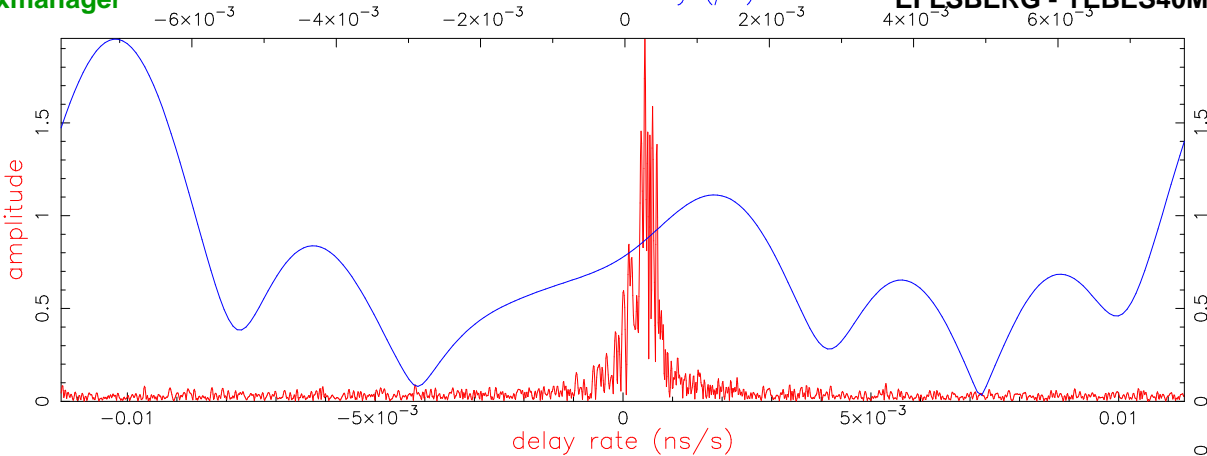
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, BY

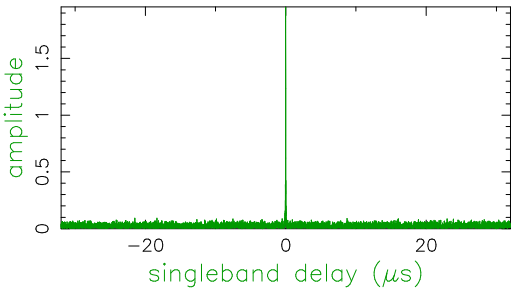
EFLSBERG - YEBES40M, fgroup W, pol LR

multiband delay (μ s)

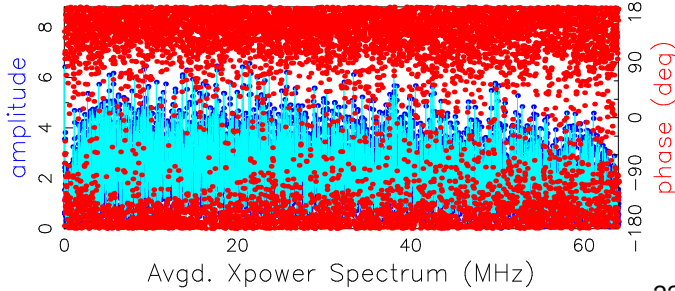


Fringe quality 2

SNR 89.8
 Int time 282.284
 Amp 1.955
 Phase 56.5
 PFD 0.0e+00
 Delays (us)
 SBD -0.016148
 MBD -0.007073
 Fringe rate (Hz)
 0.038409
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

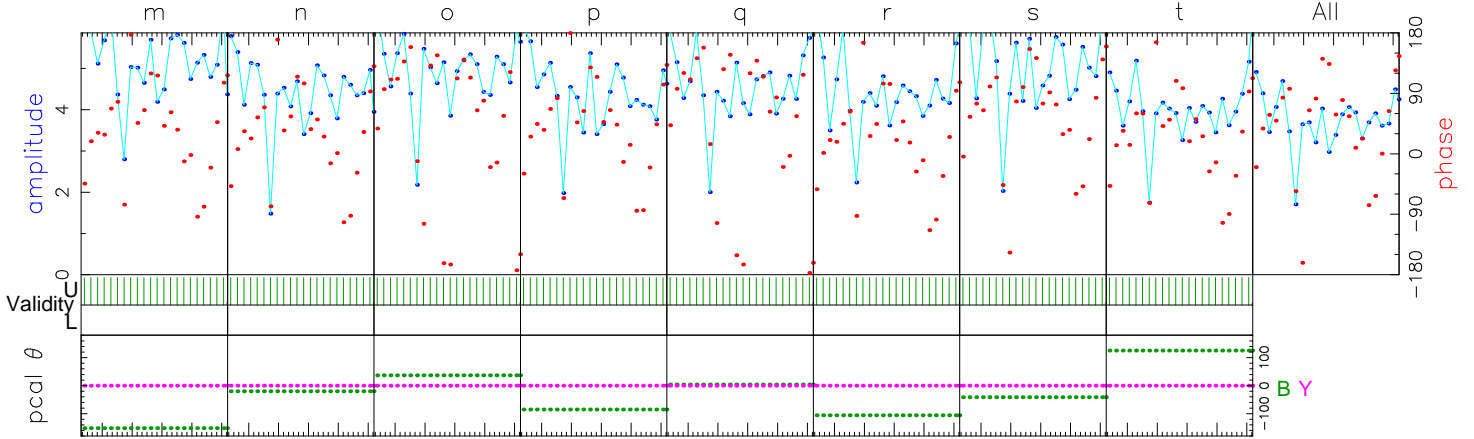


delay rate (ns/s)



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:103819
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0		
B	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Y	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	-8.18894719980E+02	Apriori delay (usec)	-8.18872022335E+02	Resid mbdelay (usec)	-7.07265E-03	+/-	1.2E-05
Sband delay (usec)	-8.18888170585E+02	Apriori clock (usec)	7.5252342E+01	Resid sbdelay (usec)	-1.61483E-02	+/-	9.6E-05
Phase delay (usec)	-8.18872020511E+02	Apriori clockrate (us/s)	5.9999998E-07	Resid phdelay (usec)	1.82342E-06	+/-	4.1E-08
Delay rate (us/s)	4.88462761178E-02	Apriori rate (us/s)	4.88458302317E-02	Resid rate (us/s)	4.45886E-07	+/-	2.5E-10
Total phase (deg)	55.1	Apriori accel (us/s/s)	1.40499118327E-05	Resid phase (deg)	56.5	+/-	1.3

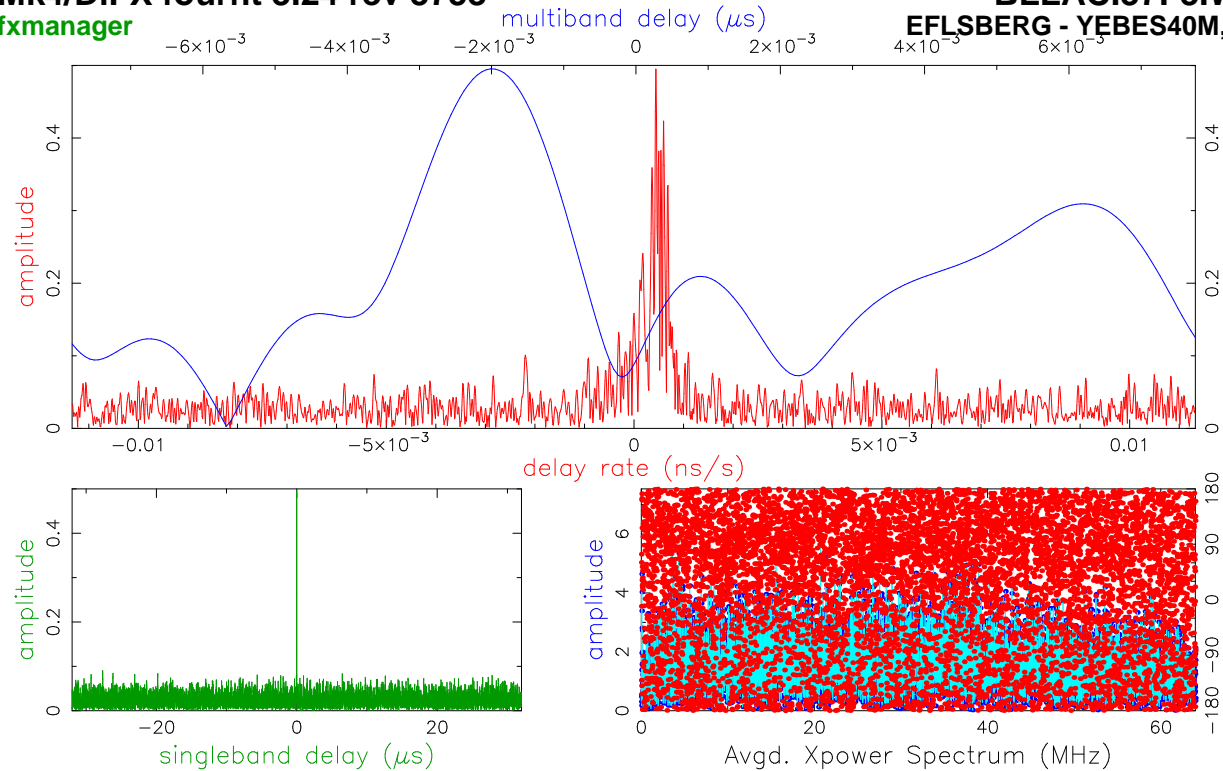
RMS Theor. Amplitude 1.955 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 67.1 3.1 Search (2048X32) 1.887 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 amp/seg (%) 97.2 5.3 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 43.1 1.8 Inc. seg. avg. 3.736 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 25.9 3.2 Inc. frq. avg. 2.424 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 B: az 284.5 el 47.2 pa 56.3 Y: az 290.8 el 50.8 pa 74.0 u, v (fr/asec) -359.493 1810.263 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BY...37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BY.W.47.37F3IW

Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, BY

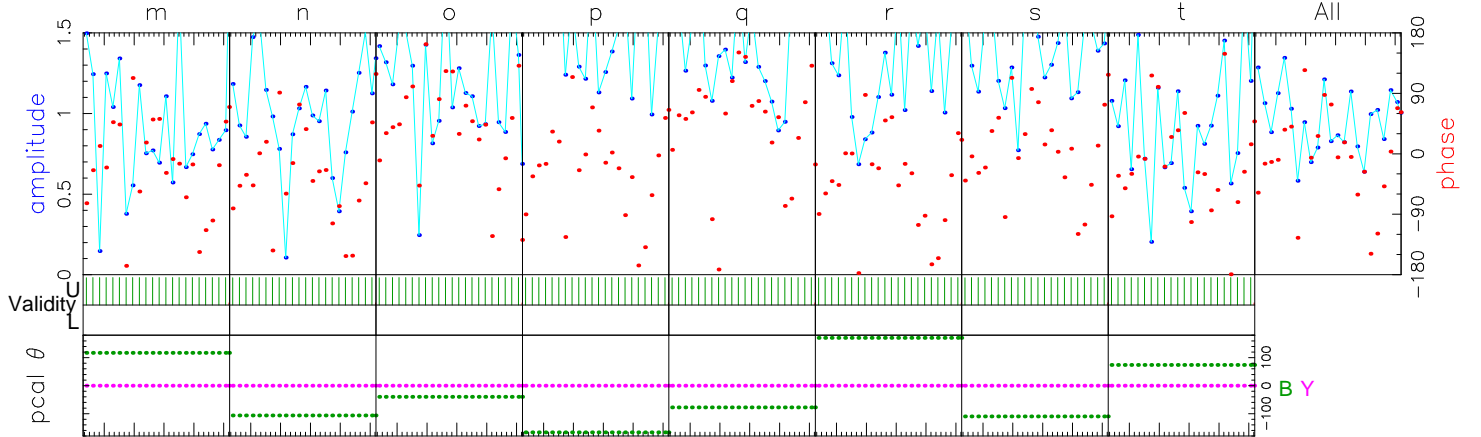
EFLSBERG - YEBES40M, fgroup W, pol RL



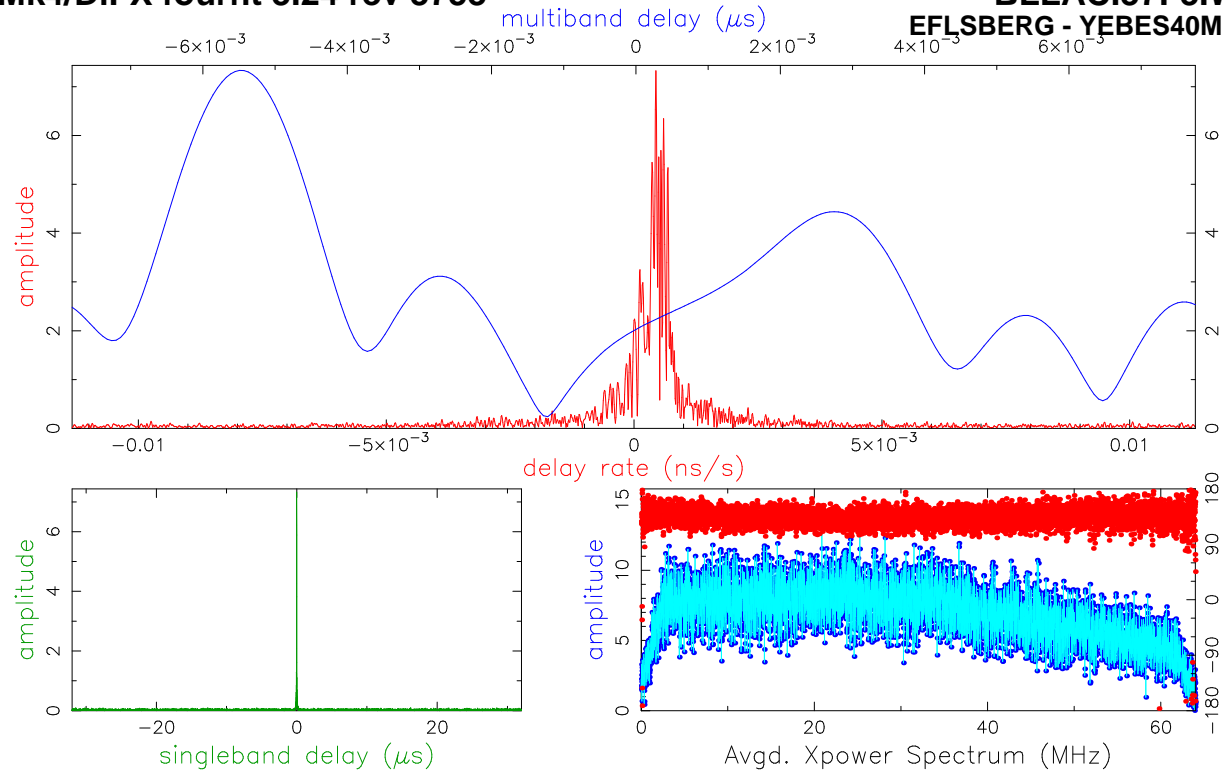
Fringe quality 8

SNR 23.0
 Int time 282.284
 Amp 0.500
 Phase 2.6
 PFD 0.0e+00
 Delays (us)
 SBD -0.010392
 MBD -0.001958
 Fringe rate (Hz)
 0.038590
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:103941
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-16.9	-31.6	61.5	-14.1	72.1	-41.9	8.0	-21.6	Phase	2.6
	0.5	0.5	0.7	0.8	0.8	0.7	0.8	0.5	Ampl.	0.6
	8189.3	8190.4	8190.7	8189.8	8190.3	8189.5	8190.1	8187.3	Sbd box	8190.3
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Y	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Manl PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
									Tracks	
Group delay (usec) (SBD)	-8.18889604917E+02		Apriori delay (usec)		-8.18872022335E+02		Resid mbdelay (usec)		-1.95758E-03	+/- 4.7E-05
Sband delay (usec)	-8.18882414085E+02		Apriori clock (usec)		7.5252342E+01		Resid sbdelay (usec)		-1.03918E-02	+/- 3.8E-04
Phase delay (usec)	-8.18872022250E+02		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		8.48390E-08	+/- 1.6E-07
Delay rate (us/s)	4.88462782251E-02		Apriori rate (us/s)		4.88458302317E-02		Resid rate (us/s)		4.47993E-07	+/- 9.9E-10
Total phase (deg)	1.2		Apriori accel (us/s/s)		1.40499118327E-05		Resid phase (deg)		2.6	+/- 5.0
ph/seg (deg)	RMS 67.6	Theor. 12.0	Amplitude 12.0	0.500 +/- 0.022	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		sb window (us)	-32.000 32.000
amp/seg (%)	100.4	20.9	Search (2048X32)	0.478	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	46.0	7.1	Interp.	0.000	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		nlags: 8192 t_cohere infinite		dr window (ns/s)	-0.011 0.011
amp/frq (%)	38.0	12.3	Inc. seg. avg.	0.941	Data rate(Mb/s): 2048		ion window (TEC)		0.00 0.00	
B: az 284.5 el 47.2 pa 56.3	Y: az 290.8 el 50.8 pa 74.0		u, v (fr/asec) -359.493 1810.263						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/BY..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BY.W.48.37F3IW							

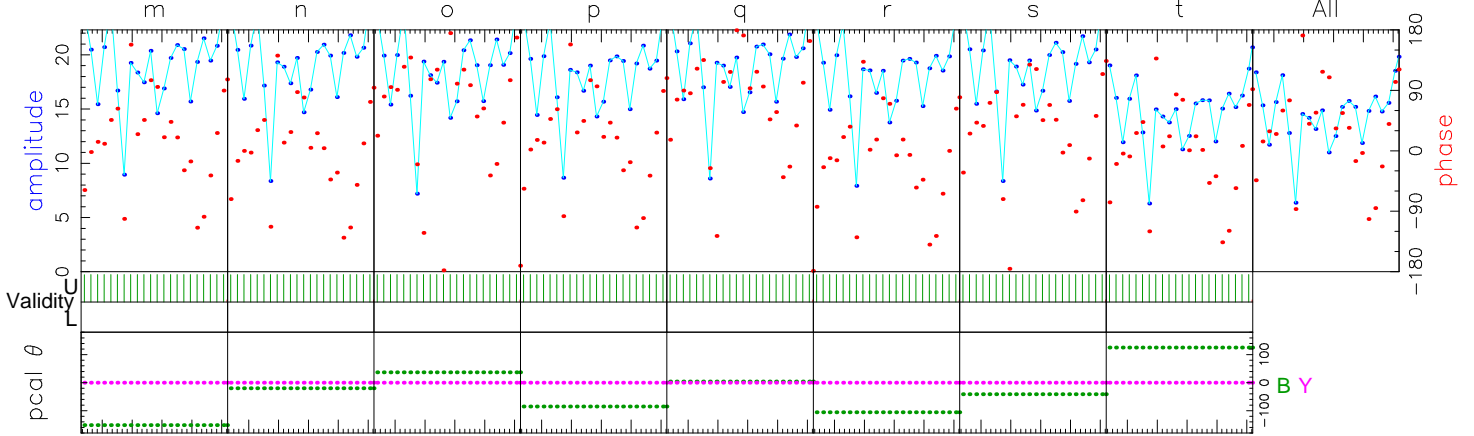


Fringe quality 2

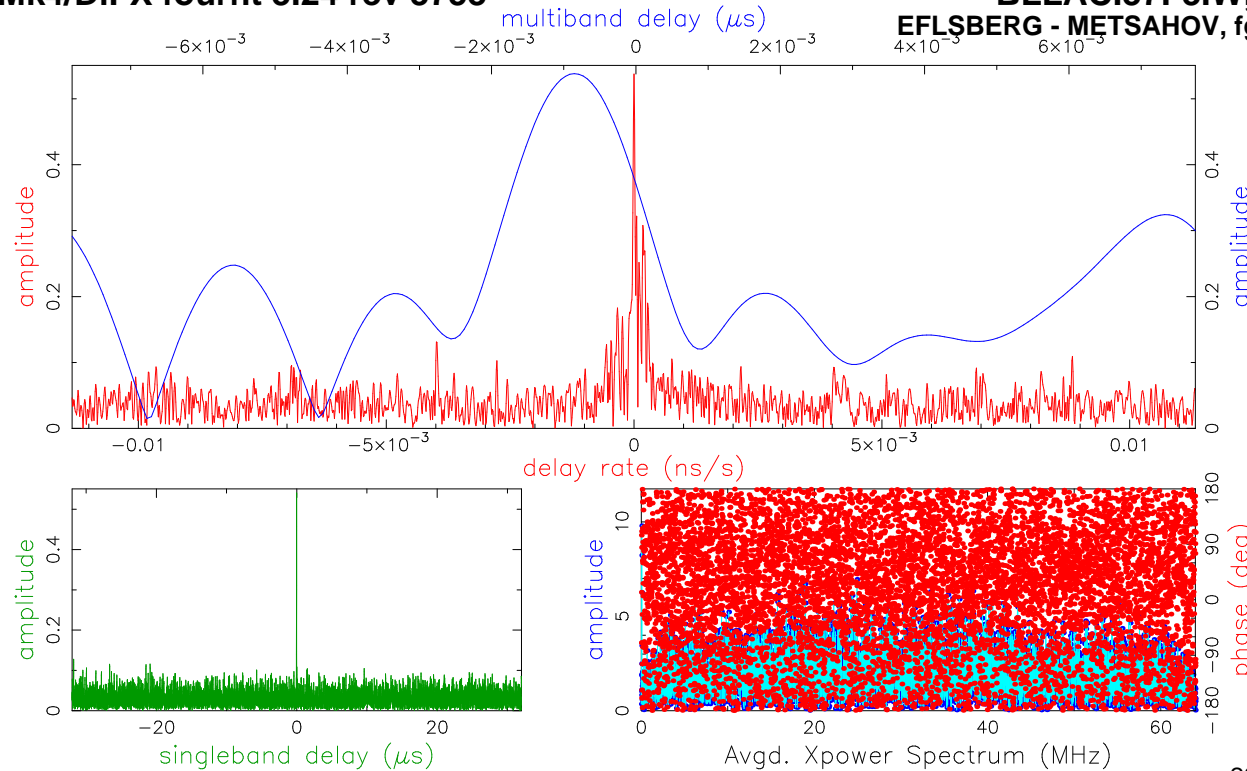
SNR 341.5
Int time 282.284
Amp 7.436
Phase 32.8
PFD 0.0e+00
Delays (us)
SBD -0.014051
MBD -0.005424
Fringe rate (Hz)
0.038393
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. f241a
Exper # 1234
Yr:day 2024:109
Start 120017.41
Stop 120500.03
FRT 120230.00
Corr/FF/build
2024:110:093036
2024:110:095338
2023:314:152938
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	18.9	3.8	98.7	19.4	93.8	-6.6	44.7	-0.7	Phase	32.8	
	9.7	9.9	9.6	9.3	9.7	9.3	9.7	7.5	Ampl.	9.3	
	8189.2	8188.8	8189.2	8189.3	8189.3	8188.7	8188.9	8187.5	Sbd box	8189.4	
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
Y	0	0	0	0	0	0	0	0	PC freqs		
B:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:Y	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000			
B	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)	-8.18893071230E+02		Apriori delay (usec)		-8.18872022335E+02		Resid mbdelay (usec)		-5.42390E-03	+/- 3.2E-06	
Sband delay (usec)	-8.18886073585E+02		Apriori clock (usec)		7.5252342E+01		Resid sbdelay (usec)		-1.40513E-02	+/- 2.5E-05	
Phase delay (usec)	-8.18872021278E+02		Apriori clockrate (us/s)		5.9999998E-07		Resid phdelay (usec)		1.05681E-06	+/- 1.1E-08	
Delay rate (us/s)	4.88462759329E-02		Apriori rate (us/s)		4.88458302317E-02		Resid rate (us/s)		4.45701E-07	+/- 6.6E-11	
Total phase (deg)	31.4		Apriori accel (us/s/s)		1.40499118327E-05		Resid phase (deg)		32.8	+/- 0.3	
	RMS	Theor.	Amplitude	7.436 +/- 0.022		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	67.6	0.8	Search (2048X32)	7.161		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-32.000 32.000	
amp/seg (%)	100.5	1.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	44.9	0.5	Inc. seg. avg.	14.413		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	27.3	0.8	Inc. frq. avg.	9.338		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite		ion window (TEC)	0.00 0.00
B: az 284.5 el 47.2 pa 56.3	Y: az 290.8 el 50.8 pa 74.0		u,v (fr/asec)		-359.493 1810.263				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001a/BY..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BY.W.7.37F3IW								

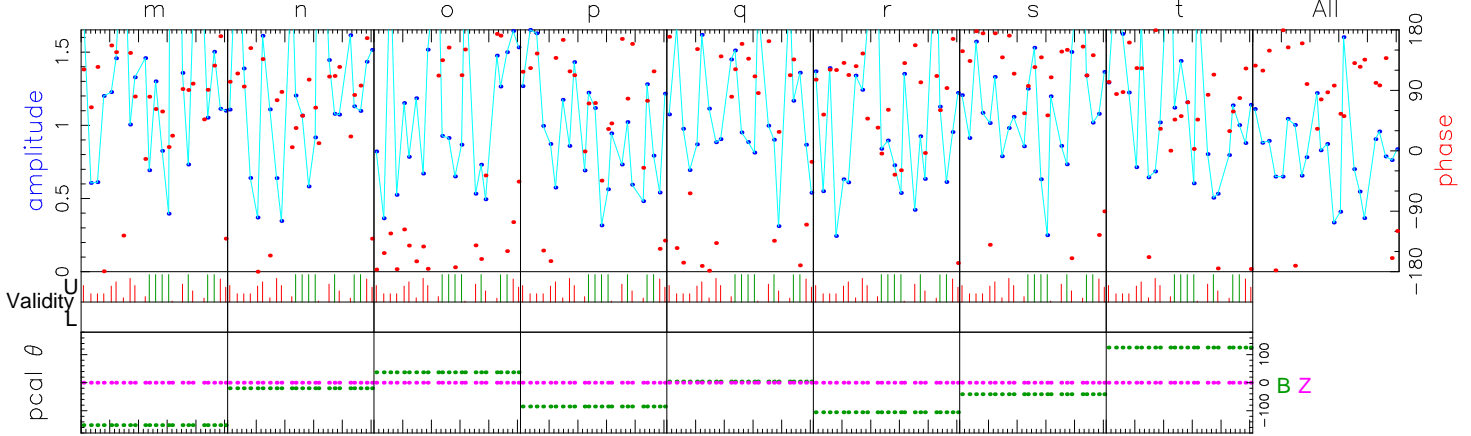


Fringe quality 6

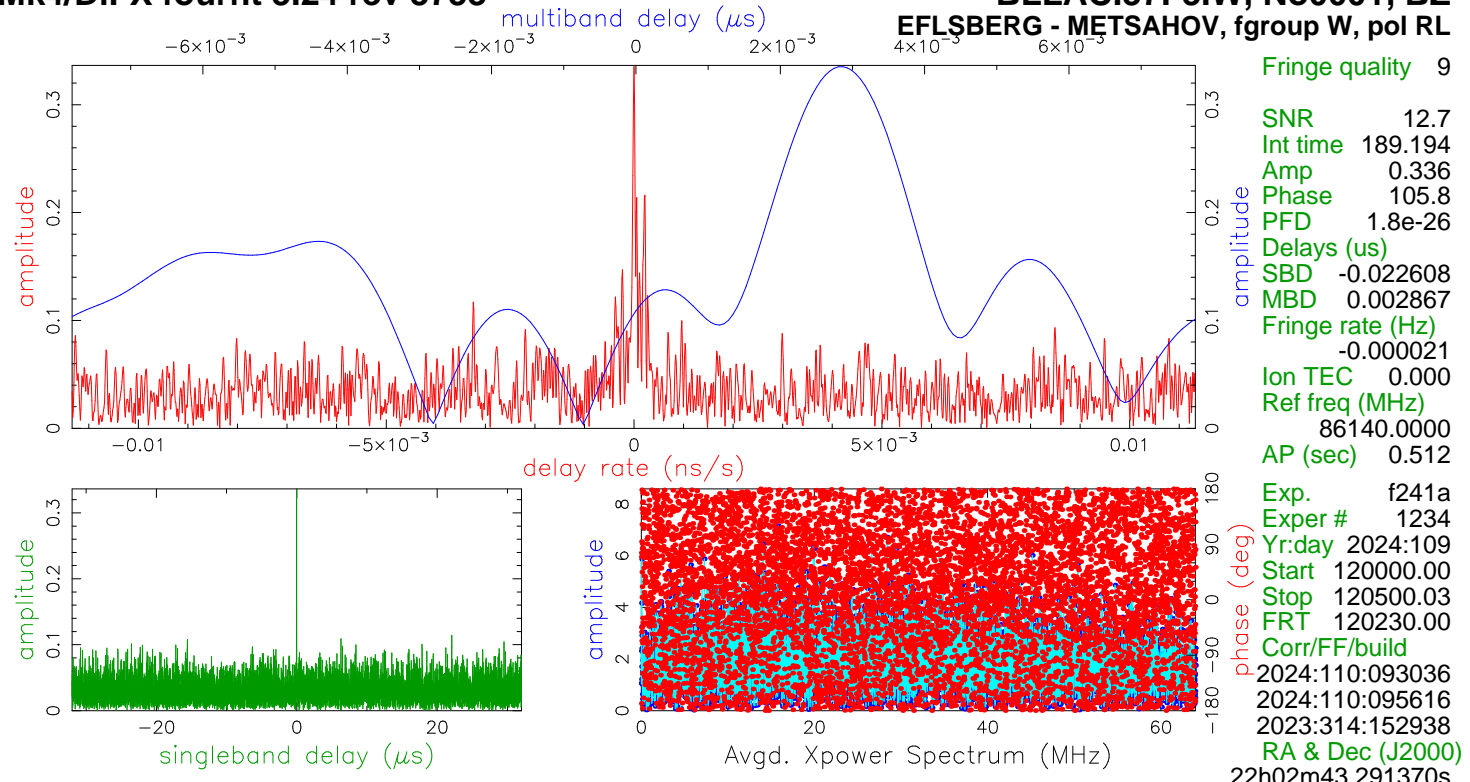
SNR 20.7
Int time 189.194
Amp 0.551
Phase 124.8
PFD 0.0e+00
Delays (us)
SBD -0.025260
MBD -0.000803
Fringe rate (Hz) 0.000092
Ion TEC 0.000
Ref freq (MHz) 86140.0000
AP (sec) 0.512

Exp. f241a
Exper # 1234
Yr:day 2024:109
Start 120000.00
Stop 120500.03
FRT 120230.00
Corr/FF/build 2024:110:093036
2024:110:095453
2023:314:152938
RA & Dec (J2000) 22h02m43.291370s
+42°16'39.979897"

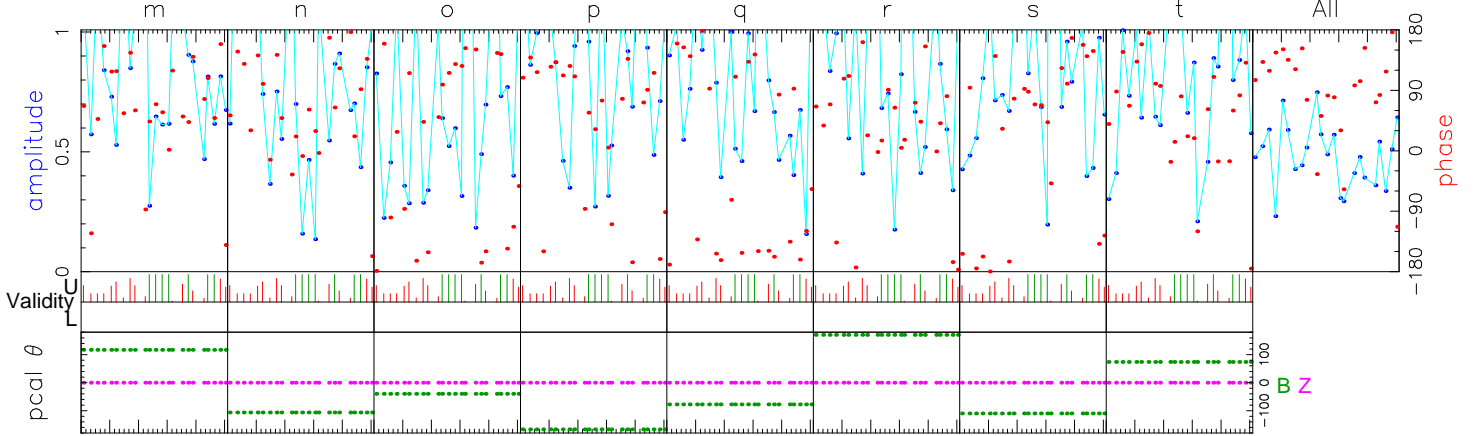
Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	109.1	99.7	-163.1	108.8	166.1	87.4	149.8	83.5	Phase	124.8	
	0.8	0.7	0.7	0.6	0.7	0.5	0.8	0.7	Ampl.	0.7	
	8186.6	8186.2	8186.2	8186.2	8185.9	8186.2	8185.6	8185.5	Sbd box	8186.5	
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
Z	0	0	0	0	0	0	0	0	PC freqs		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:Z	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Manl PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Z	1000	1000	1000	1000	1000	1000	1000	1000			
B	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)	1.82765968053E+03		Apriori delay (usec)		1.82769173318E+03		Resid mbdelay (usec)		-8.02656E-04	+/- 5.2E-05	
Sband delay (usec)	1.82766647343E+03		Apriori clock (usec)		-3.5525715E+01		Resid sbdelay (usec)		-2.52597E-02	+/- 4.2E-04	
Phase delay (usec)	1.82769173721E+03		Apriori clockrate (us/s)		-3.3620003E-07		Resid phdelay (usec)		4.02585E-06	+/- 1.8E-07	
Delay rate (us/s)	-9.04304307362E-02		Apriori rate (us/s)		-9.04304318005E-02		Resid rate (us/s)		1.06425E-09	+/- 1.5E-09	
Total phase (deg)	87.5		Apriori accel (us/s/s)		-1.72283794253E-05		Resid phase (deg)		124.8	+/- 5.5	
RMS	45.8	11.1	Amplitude	0.551 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	45.8	11.1	Search (2048X32)	0.533		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-32.000 32.000	
amp/seg (%)	53.6	19.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	44.3	7.8	Inc. seg. avg.	0.724		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	29.1	13.7	Inc. frq. avg.	0.673		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite		ion window (TEC)	0.00 0.00
B: az 284.5 el 47.2 pa 56.3	Z: az 287.5 el 40.2 pa 39.8		u, v (fr/asec) 678.142 -1871.125						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/BZ..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BZ.W.11.37F3IW								



Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



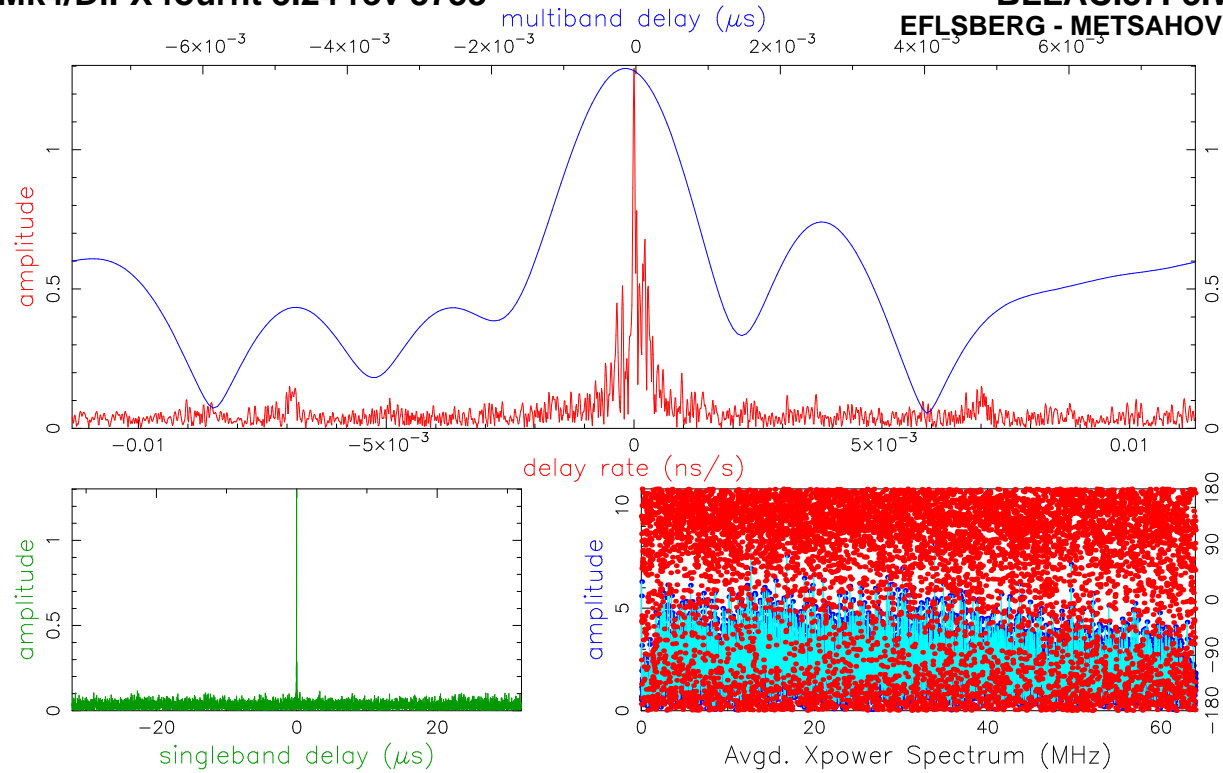
86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
80.0	94.2	160.8	106.9	-177.4	65.6	126.4	75.8	Phase	105.8
0.5	0.4	0.3	0.5	0.4	0.4	0.4	0.5	Ampl.	0.4
8187.7	8186.4	13087.2	8186.7	8187.4	8187.5	8186.5	8186.4	Sbd box	8187.2
U/L 413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used	
B 0	0	0	0	0	0	0	0	PC freqs	
Z 0	0	0	0	0	0	0	0	PC freqs	
B:Z 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z 118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC	
B 1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z 1000	1000	1000	1000	1000	1000	1000	1000		
B W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.82766335000E+03	Apriori delay (usec)	1.82769173318E+03	Resid mbdelay (usec)	2.86681E-03	+/-	8.6E-05
Sband delay (usec)	1.82766912543E+03	Apriori clock (usec)	-3.5525715E+01	Resid sbdelay (usec)	-2.26077E-02	+/-	6.8E-04
Phase delay (usec)	1.82769173660E+03	Apriori clockrate (us/s)	-3.3620003E-07	Resid phdelay (usec)	3.41293E-06	+/-	2.9E-07
Delay rate (us/s)	-9.04304320392E-02	Apriori rate (us/s)	-9.04304318005E-02	Resid rate (us/s)	-2.38784E-10	+/-	2.4E-09
Total phase (deg)	68.5	Apriori accel (us/s/s)	-1.72283794253E-05	Resid phase (deg)	105.8	+/-	9.1

ph/seg (deg)	50.5	18.2	Search (2048X32)	0.334	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-32.000	32.000
amp/seg (%)	56.8	31.8	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	45.9	12.8	Inc. seg. avg.	0.459	Data rate (MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 8192 t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	34.7	22.3	Inc. frq. avg.	0.412	Data rate (Mb/s): 2048		ion window (TEC)	0.00	0.00

B: az 284.5 el 47.2 pa 56.3 Z: az 287.5 el 40.2 pa 39.8 u, v (fr/asec) 678.142 -1871.125 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BZ..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BZ.W.16.37F3IW

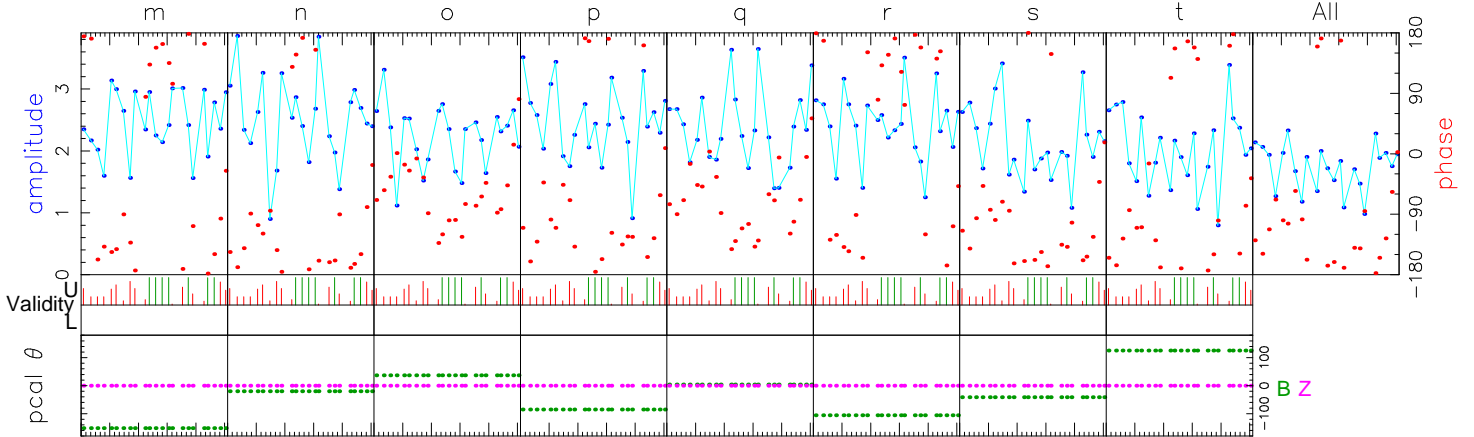


Fringe quality 2

SNR 49.0
Int time 189.194
Amp 1.303
Phase -137.4
PFD 0.0e+00
Delays (us)
SBD -0.024663
MBD -0.000169
Fringe rate (Hz)
-0.000018
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512

Exp. f241a
Exper # 1234
Yr:day 2024:109
Start 120000.00
Stop 120500.03
FRT 120230.00
Corr/FF/build
2024:110:093036
2024:110:095207
2023:314:152938
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-172.6	-157.1	-65.1	-132.3	-77.4	177.0	-127.3	-156.0	Phase	-137.4
	1.8	1.9	1.6	1.7	1.6	1.7	1.5	1.6	Ampl.	1.7
	8186.6	8186.3	8186.6	8186.4	8186.5	8186.1	8186.0	8185.4	Sbd box	8186.7
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.82766031456E+03	Apriori delay (usec)	1.82769173318E+03	Resid mbdelay (usec)	-1.68625E-04	+/-	2.2E-05
Sband delay (usec)	1.82766707068E+03	Apriori clock (usec)	-3.5525715E+01	Resid sbdelay (usec)	-2.46625E-02	+/-	1.8E-04
Phase delay (usec)	1.82769172875E+03	Apriori clockrate (us/s)	-3.3620003E-07	Resid phdelay (usec)	-4.42952E-06	+/-	7.5E-08
Delay rate (us/s)	-9.04304320123E-02	Apriori rate (us/s)	-9.04304318005E-02	Resid rate (us/s)	-2.11859E-10	+/-	6.2E-10
Total phase (deg)	185.3	Apriori accel (us/s/s)	-1.72283794253E-05	Resid phase (deg)	-137.4	+/-	2.3

	RMS	Theor.	Amplitude	1.303 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	47.0	4.7	Search (2048X32)	1.279	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000	32.000
amp/seg (%)	43.1	8.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	46.5	3.3	Inc. seg. avg.	1.762	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011	0.011
amp/frq (%)	28.7	5.8	Inc. frq. avg.	1.659	Data rate(Mb/s): 2048	nlags: 8192 t_cohere infinite	ion window (TEC)	0.00 0.00

B: az 284.5 el 47.2 pa 56.3 Z: az 287.5 el 40.2 pa 39.8 u,v (fr/asec) 678.142 -1871.125 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/BZ..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/BZ.W.2.37F3IW

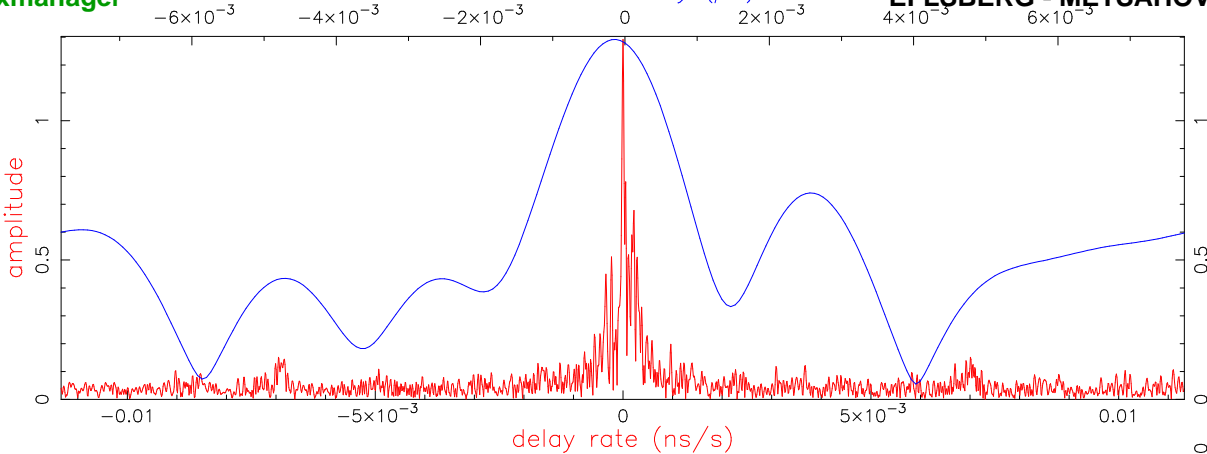
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, BZ

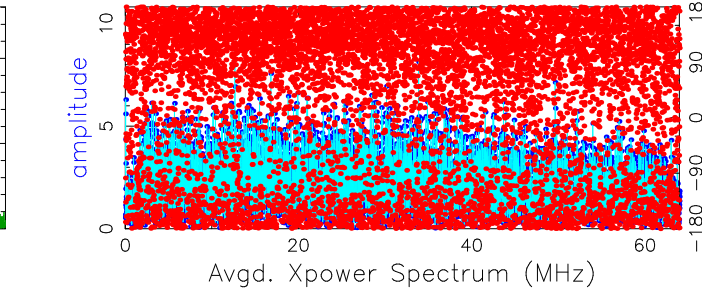
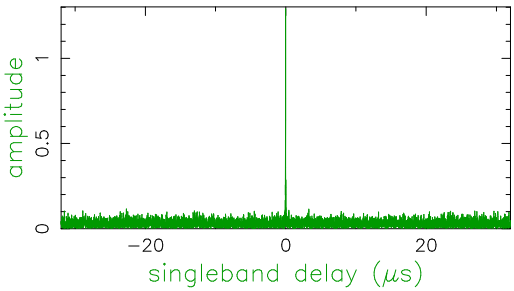
EFLSBERG - METSAHOV, fgroup W, pol LL

multiband delay (μ s)

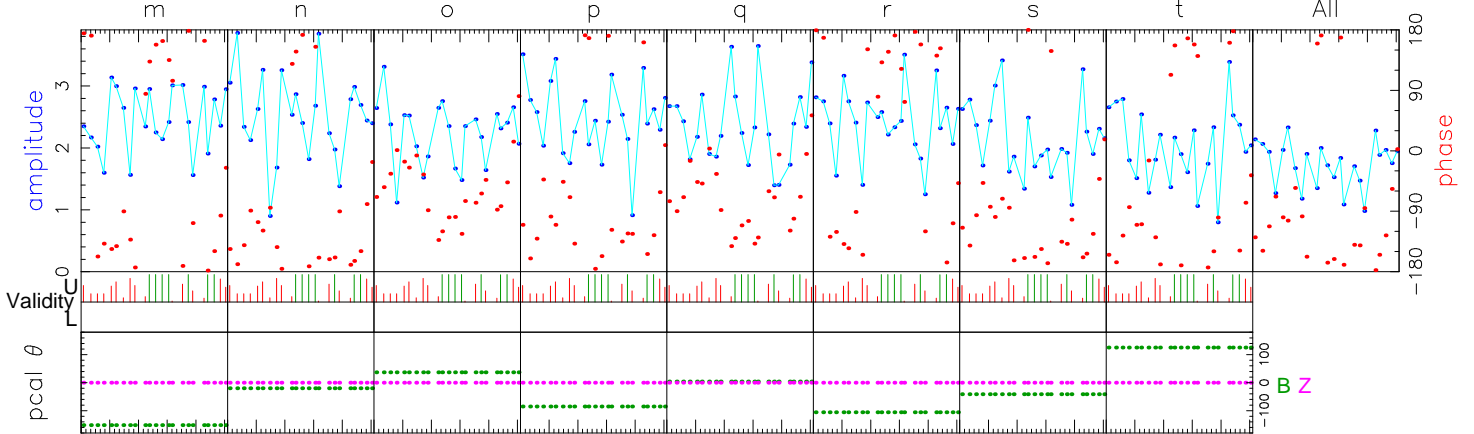


Fringe quality 2

SNR 49.0
 Int time 189.194
 Amp 1.303
 Phase -137.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.024663
 MBD -0.000169
 Fringe rate (Hz)
 -0.000018
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:100853
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-172.6	-157.1	-65.1	-132.3	-77.4	177.0	-127.3	-156.0	Phase	-137.4
	1.8	1.9	1.6	1.7	1.6	1.7	1.5	1.6	Ampl.	1.7
	8186.6	8186.3	8186.6	8186.4	8186.5	8186.1	8186.0	8185.4	Sbd box	8186.7
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	-151:0	-20:0	37:0	-85:0	4:0	-106:0	-41:0	125:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 1.82766031456E+03 Apriori delay (usec) 1.82769173318E+03 Resid mbdelay (usec) -1.68625E-04 +/- 2.2E-05
 Sband delay (usec) 1.82766707068E+03 Apriori clock (usec) -3.5525715E+01 Resid sbdelay (usec) -2.46625E-02 +/- 1.8E-04
 Phase delay (usec) 1.82769172875E+03 Apriori clockrate (us/s) -3.3620003E-07 Resid phdelay (usec) -4.42952E-06 +/- 7.5E-08
 Delay rate (us/s) -9.04304320123E-02 Apriori rate (us/s) -9.04304318005E-02 Resid rate (us/s) -2.11859E-10 +/- 6.2E-10
 Total phase (deg) 185.3 Apriori accel (us/s/s) -1.72283794253E-05 Resid phase (deg) -137.4 +/- 2.3

RMS Theor. Amplitude 1.303 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 47.0 4.7 Search (2048X32) 1.279 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 amp/seg (%) 43.1 8.2 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 46.5 3.3 Inc. seg. avg. 1.762 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 28.7 5.8 Inc. frq. avg. 1.659 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00

B: az 284.5 el 47.2 pa 56.3 Z: az 287.5 el 40.2 pa 39.8 u, v (fr/asec) 678.142 -1871.125 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//BZ..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//BZ.W.25.37F3IW

Mk4/DiFX fourfit 3.24 rev 3753

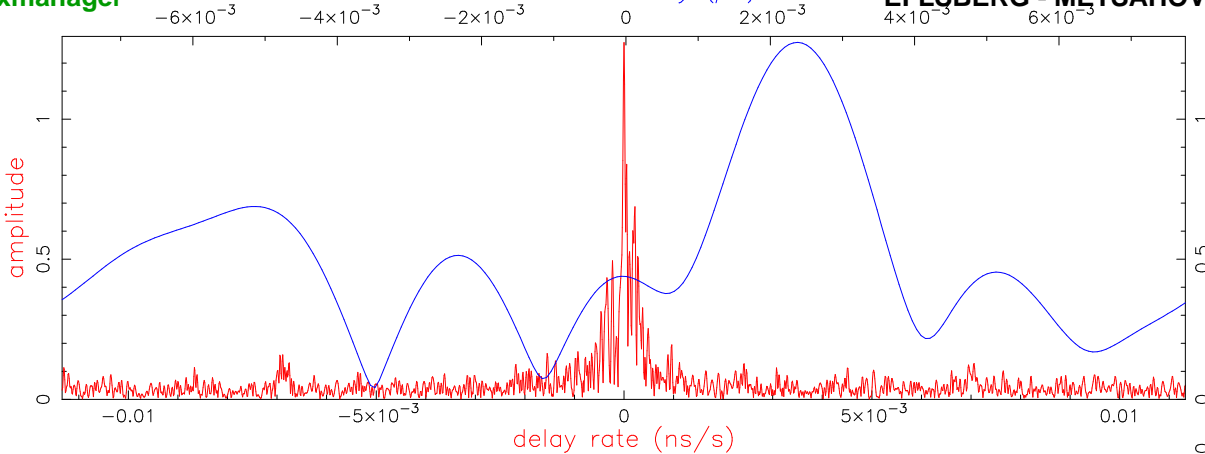
fxmanager

BLLAC.37F3IW, No0001, BZ

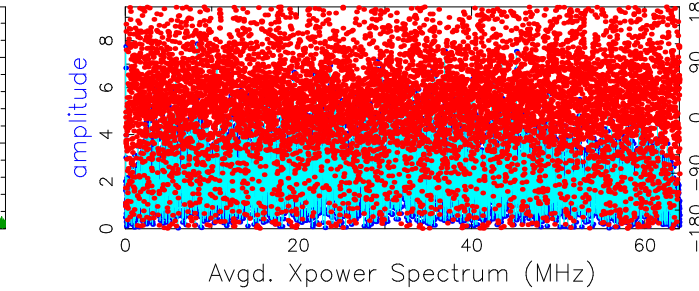
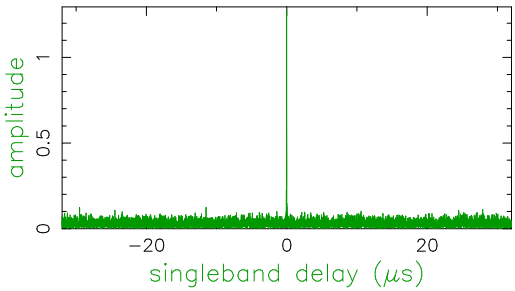
EFLSBERG - METSAHOV, fgroup W, pol RR

multiband delay (μ s)

Fringe quality 2

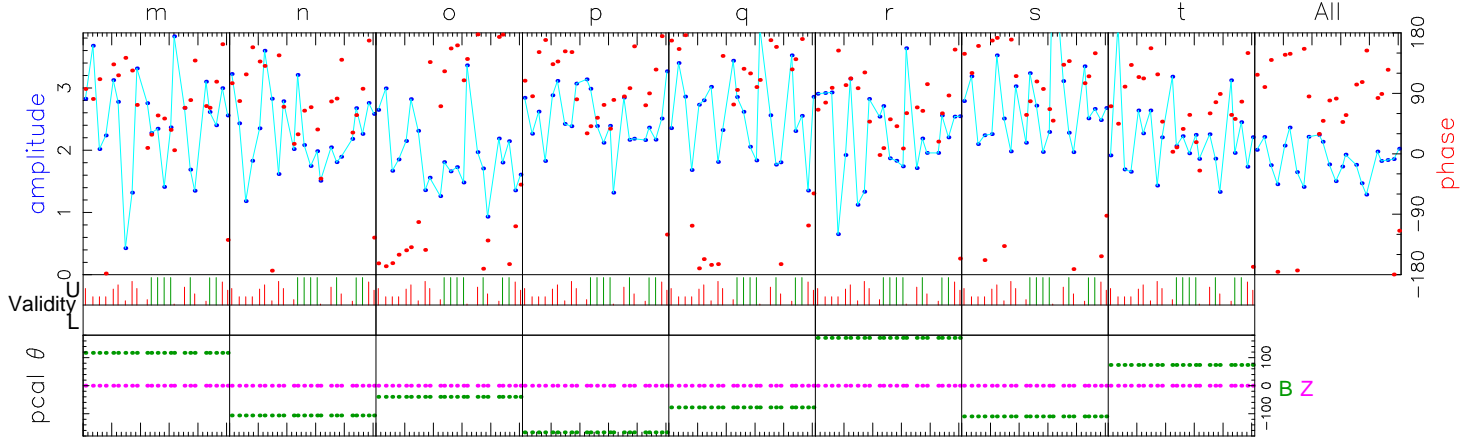


SNR 48.7
 Int time 189.194
 Amp 1.295
 Phase 108.9
 PFD 0.0e+00
 Delays (us)
 SBD -0.021672
 MBD 0.002412
 Fringe rate (Hz)
 -0.000035
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:101011
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	87.0	90.2	-174.6	101.3	155.9	71.1	133.8	68.8	Phase	108.9
	1.6	1.6	1.4	1.7	1.6	1.6	1.8	1.5	Ampl.	1.6
	8187.1	8187.4	8187.2	8187.0	8187.0	8187.5	8187.0	8186.2	Sbd box	8187.5
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used	
B	0	0	0	0	0	0	0	0	PC freqs	
Z	0	0	0	0	0	0	0	0	PC freqs	
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
B:Z	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC	
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	1.82766289471E+03	Apriori delay (usec)	1.82769173318E+03	Resid mbdelay (usec)	2.41153E-03	+/-	2.2E-05
Sband delay (usec)	1.82767006093E+03	Apriori clock (usec)	-3.5525715E+01	Resid sbdelay (usec)	-2.16723E-02	+/-	1.8E-04
Phase delay (usec)	1.82769173669E+03	Apriori clockrate (us/s)	-3.3620003E-07	Resid phdelay (usec)	3.51079E-06	+/-	7.6E-08
Delay rate (us/s)	-9.04304322051E-02	Apriori rate (us/s)	-9.04304318005E-02	Resid rate (us/s)	-4.04586E-10	+/-	6.2E-10
Total phase (deg)	71.6	Apriori accel (us/s/s)	-1.72283794253E-05	Resid phase (deg)	108.9	+/-	2.4

ph/seg (deg)	48.5	4.7	Search (2048X32)	1.271	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5	sb window (us)	-32.000	32.000
amp/seg (%)	46.2	8.3	Interp.	0.000	Pcal rate: 0.000E+00, 0.000E+00 (us/s)	SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	45.8	3.3	Inc. seg. avg.	1.815	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	nlags: 8192 t_cohere infinite	dr window (ns/s)	-0.011	0.011
amp/frq (%)	25.7	5.8	Inc. frq. avg.	1.600	Data rate(Mb/s): 2048		ion window (TEC)	0.00	0.00
B: az 284.5 el 47.2 pa 56.3	Z: az 287.5 el 40.2 pa 39.8	u, v (fr/asec)	678.142 -1871.125						simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//BZ..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//BZ.W.26.37F3IW

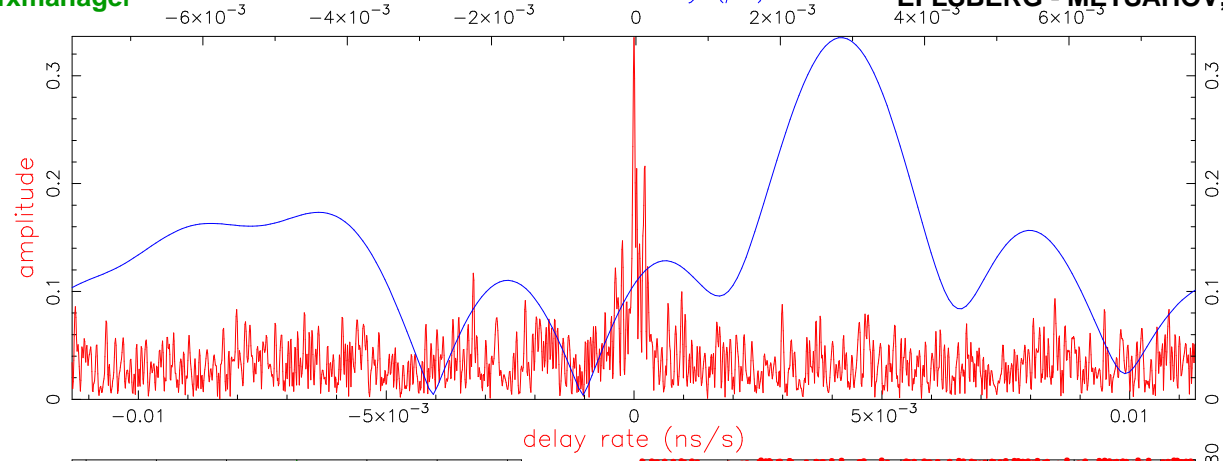
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

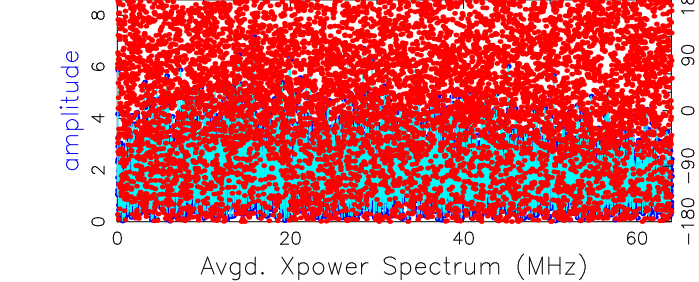
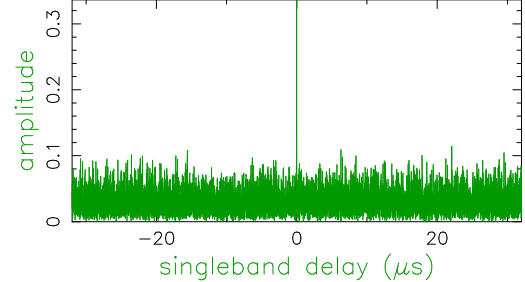
BLLAC.37F3IW, No0001, BZ

EFLSBERG - METSAHOV, fgroup W, pol RL

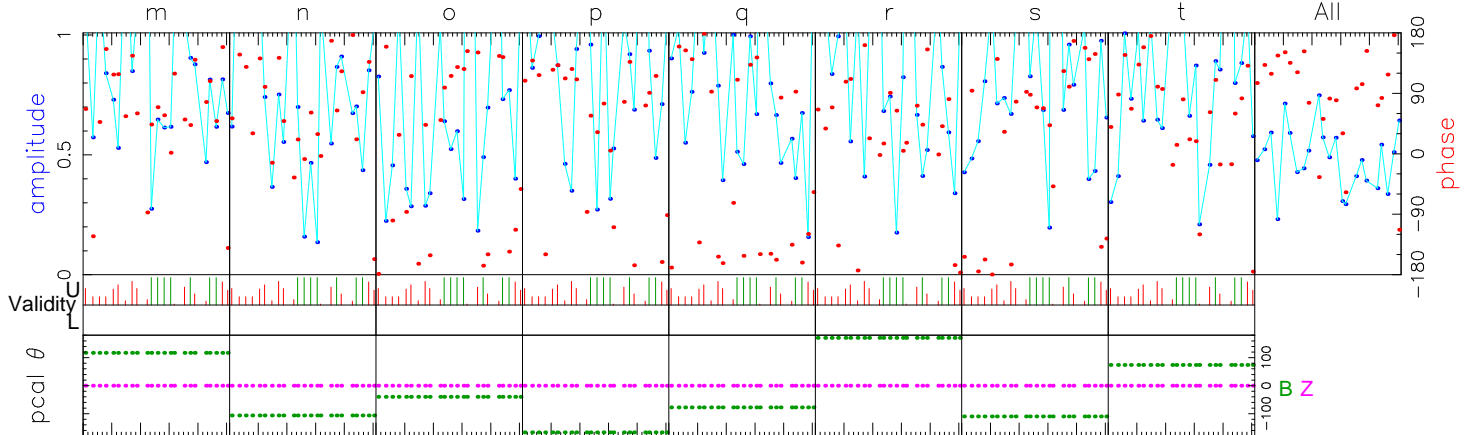
multiband delay (μ s)



Fringe quality 9
 SNR 12.7
 Int time 189.194
 Amp 0.336
 Phase 105.8
 PFD 1.8e-26
 Delays (μ s)
 SBD -0.022608
 MBD 0.002867
 Fringe rate (Hz) -0.000021
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:101252
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



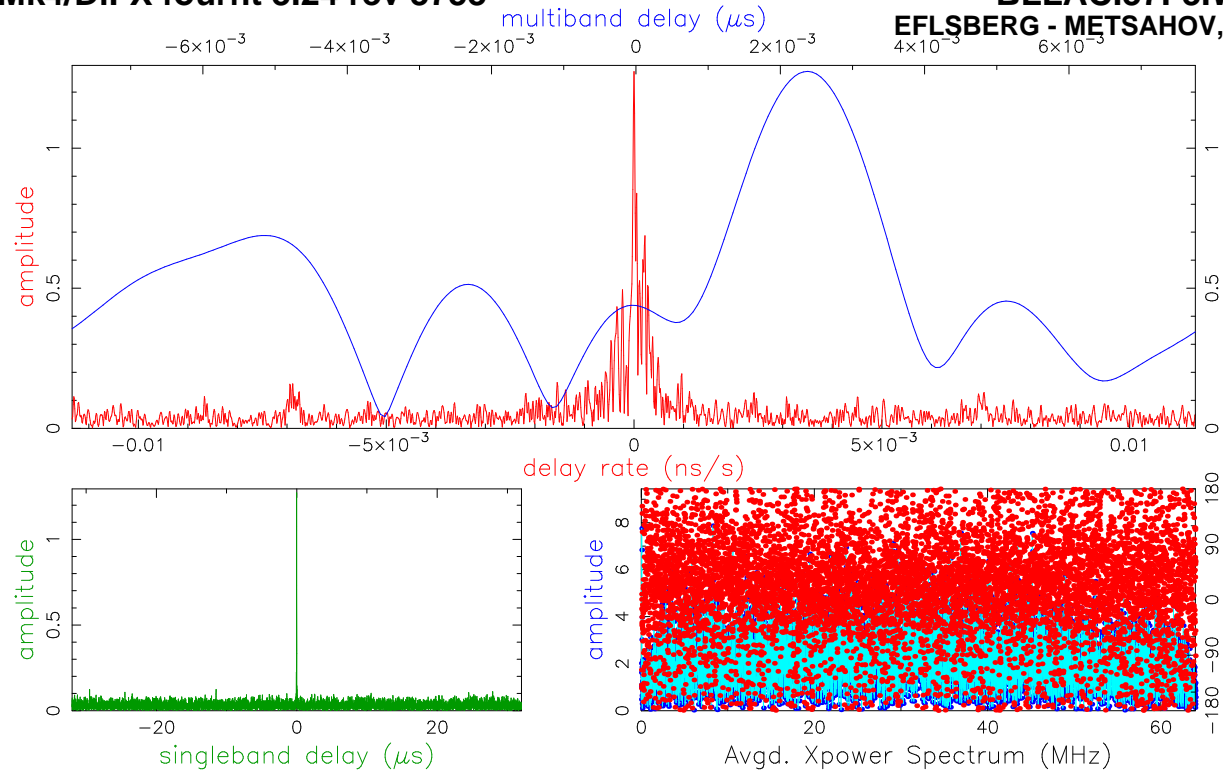
Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0		
B	0	0	0	0	0	0	0	0		
Z	0	0	0	0	0	0	0	0		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
B:Z	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0		
B	1000	1000	1000	1000	1000	1000	1000	1000		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	1.82766335000E+03	Apriori delay (usec)	1.82769173318E+03	Resid mbdelay (usec)	2.86681E-03	+/-	8.6E-05
Sband delay (usec)	1.82766912543E+03	Apriori clock (usec)	-3.5525715E+01	Resid sbdelay (usec)	-2.26077E-02	+/-	6.8E-04
Phase delay (usec)	1.82769173660E+03	Apriori clockrate (us/s)	-3.3620003E-07	Resid phdelay (usec)	3.41293E-06	+/-	2.9E-07
Delay rate (us/s)	-9.04304320392E-02	Apriori rate (us/s)	-9.04304318005E-02	Resid rate (us/s)	-2.38784E-10	+/-	2.4E-09
Total phase (deg)	68.5	Apriori accel (us/s/s)	-1.72283794253E-05	Resid phase (deg)	105.8	+/-	9.1

ph/seg (deg) 50.5 18.2 Search (2048X32) 0.334 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 56.8 31.8 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 45.9 12.8 Inc. seg. avg. 0.459 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 34.7 22.3 Inc. frq. avg. 0.412 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 B: az 284.5 el 47.2 pa 56.3 Z: az 287.5 el 40.2 pa 39.8 u, v (fr/asec) 678.142 -1871.125 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//BZ..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//BZ.W.28.37F3IW



Fringe quality 2

SNR 48.7

Int time 189.194

Amp 1.295

Phase 108.9

PFD 0.0e+00

Delays (us)

SBD -0.021672

MBD 0.002412

Fringe rate (Hz) -0.000035

Ion TEC 0.000

Ref freq (MHz) 86140.0000

AP (sec) 0.512

Exp. f241a

Exper # 1234

Yr:day 2024:109

Start 120000.00

Stop 120500.03

FRT 120230.00

Corr/FF/build

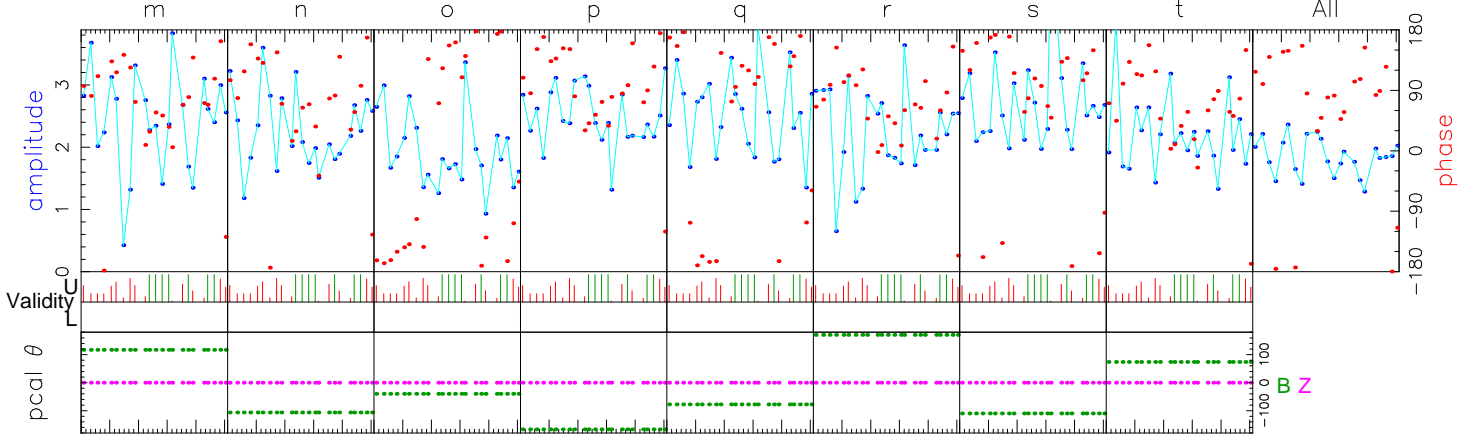
2024:110:093036

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2023:314:152938

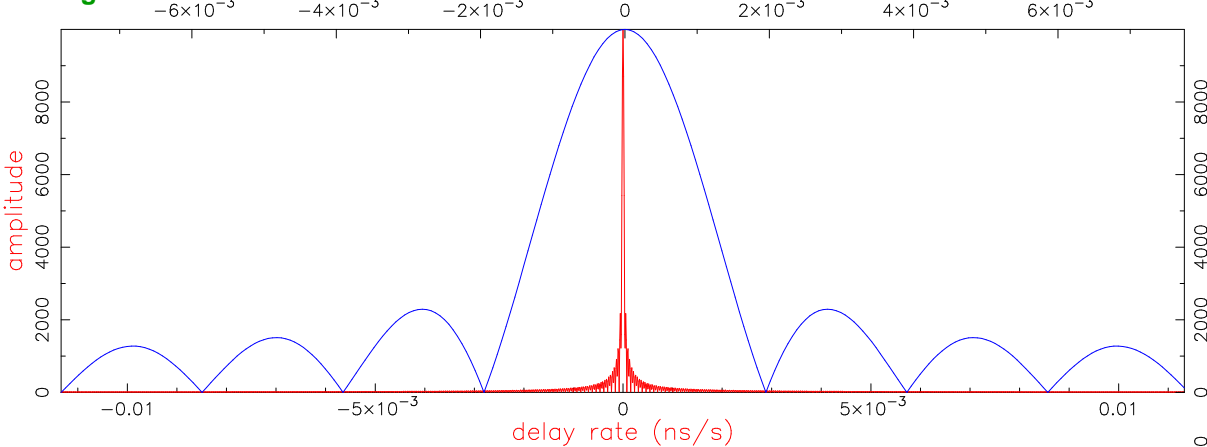
RA & Dec (J2000) 22h02m43.291370s +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



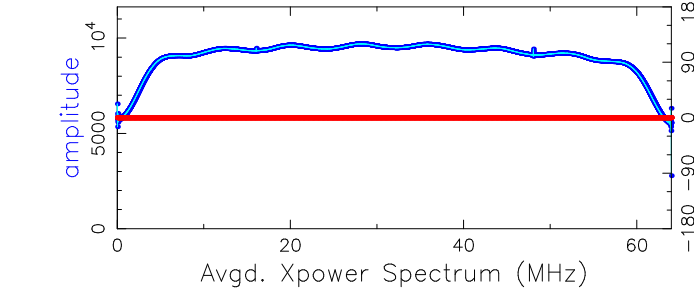
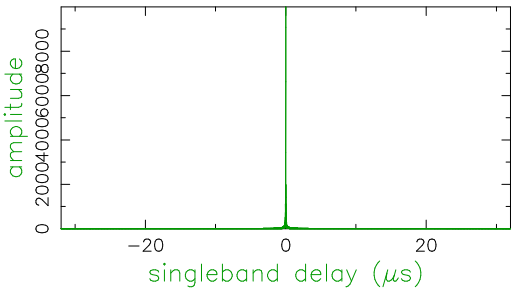
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	87.0	90.2	-174.6	101.3	155.9	71.1	133.8	68.8	Phase	108.9	
	1.6	1.6	1.4	1.7	1.6	1.6	1.8	1.5	Ampl.	1.6	
	8187.1	8187.4	8187.2	8187.0	8187.0	8187.5	8187.0	8186.2	Sbd box	8187.5	
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used		
B	0	0	0	0	0	0	0	0	PC freqs		
Z	0	0	0	0	0	0	0	0	PC freqs		
B:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
B:Z	118:0	-106:0	-40:0	-167:0	-77:0	171:0	-110:0	74:0	Mani PC		
B	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Z	1000	1000	1000	1000	1000	1000	1000	1000			
B	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	1.82766289471E+03		Apriori delay (usec)		1.82769173318E+03		Resid mbdelay (usec)		2.41153E-03	+/- 2.2E-05	
Sband delay (usec)	1.82767006093E+03		Apriori clock (usec)		-3.5525715E+01		Resid sbdelay (usec)		-2.16723E-02	+/- 1.8E-04	
Phase delay (usec)	1.82769173669E+03		Apriori clockrate (us/s)		-3.3620003E-07		Resid phdelay (usec)		3.51079E-06	+/- 7.6E-08	
Delay rate (us/s)	-9.04304322051E-02		Apriori rate (us/s)		-9.04304318005E-02		Resid rate (us/s)		-4.04586E-10	+/- 6.2E-10	
Total phase (deg)	71.6		Apriori accel (us/s/s)		-1.72283794253E-05		Resid phase (deg)		108.9	+/- 2.4	
RMS	48.5	4.7	Amplitude		1.295 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	48.5	4.7	Search (2048X32)		1.271		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-32.000 32.000	
amp/seg (%)	46.2	8.3	Interp.		0.000		SampCntNorm: enabled		mb window (us)	-0.008 0.008	
ph/frq (deg)	45.8	3.3	Inc. seg. avg.		1.815		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
amp/frq (%)	25.7	5.8	Inc. frq. avg.		1.600		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite	ion window (TEC)	0.00 0.00
B: az 284.5 el 47.2 pa 56.3	Z: az 287.5 el 40.2 pa 39.8		u, v (fr/asec)		678.142 -1871.125				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/BZ..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/BZ.W.6.37F3IW								

multiband delay (μ s)



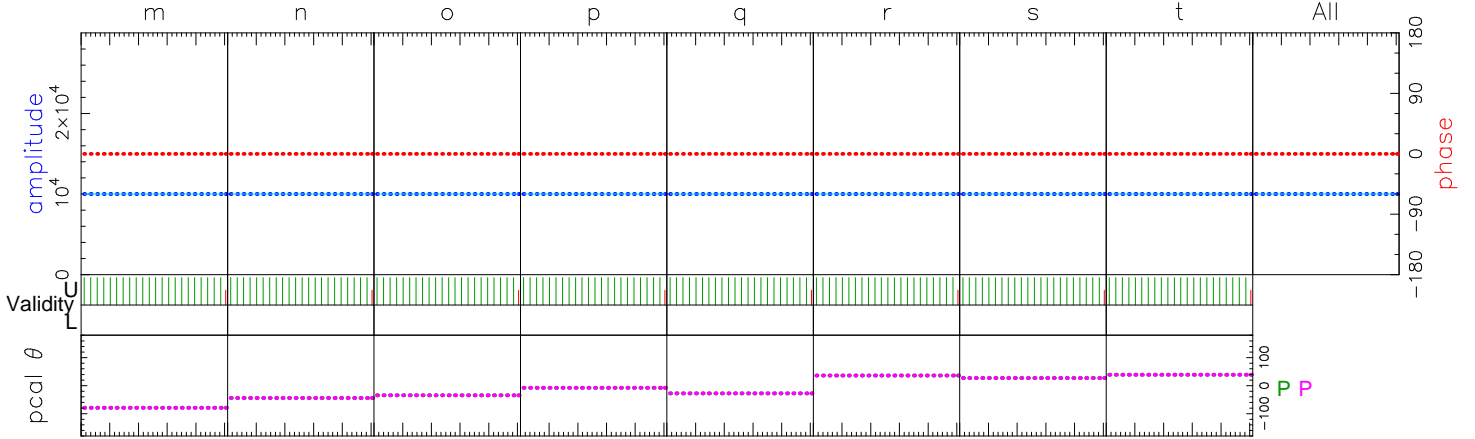
Fringe quality 9

SNR 473636.9
 Int time 299.983
 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. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:103009
 2023:348:201250
 RA & Dec (J2000) 22h02m43.291370s +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec

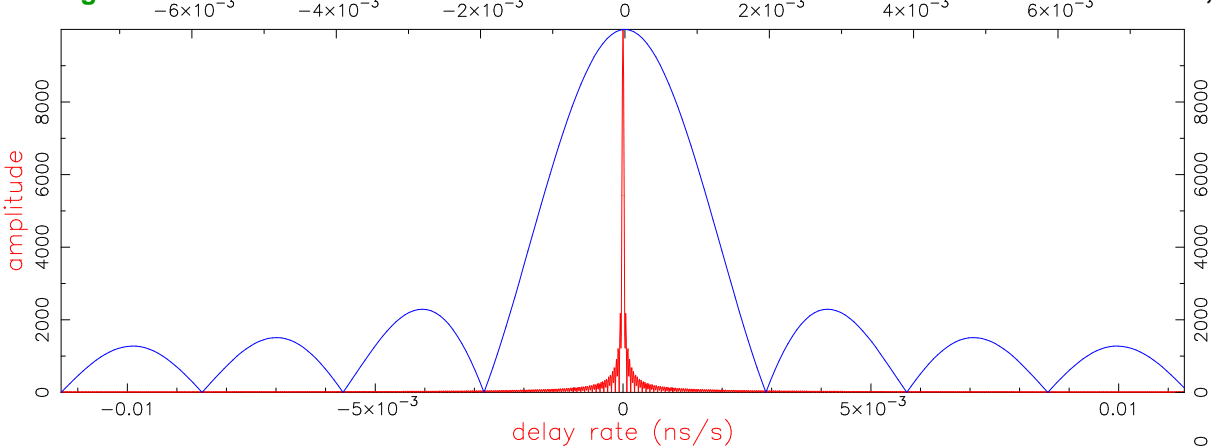


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0		
P	0	0	0	0	0	0	0	0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	-79:-79	-44:-44	-34:-34	-8:-8	-28:-28	36:36	27:27	39:39		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.8E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	7.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	4.5E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

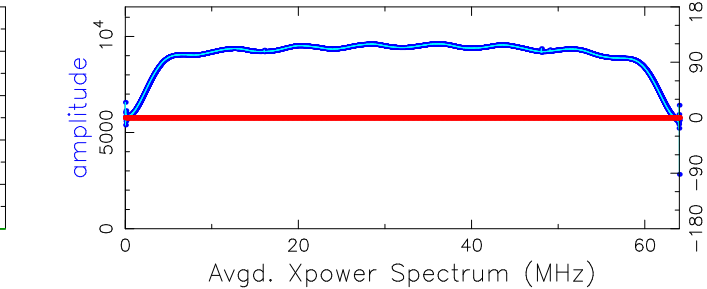
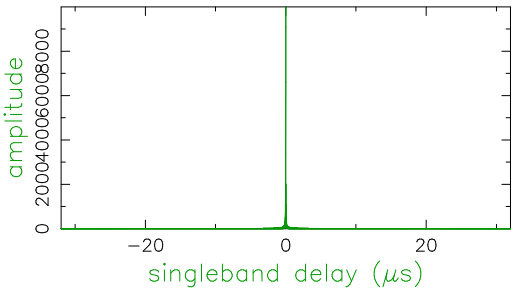
ph/seg (deg) 0.0 0.0 Theor. Amplitude 9999.999 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 P: az 294.6 el 49.7 pa 79.1 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//PP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//PP.W.41.37F3IW simultaneous interpolator

multiband delay (μ s)



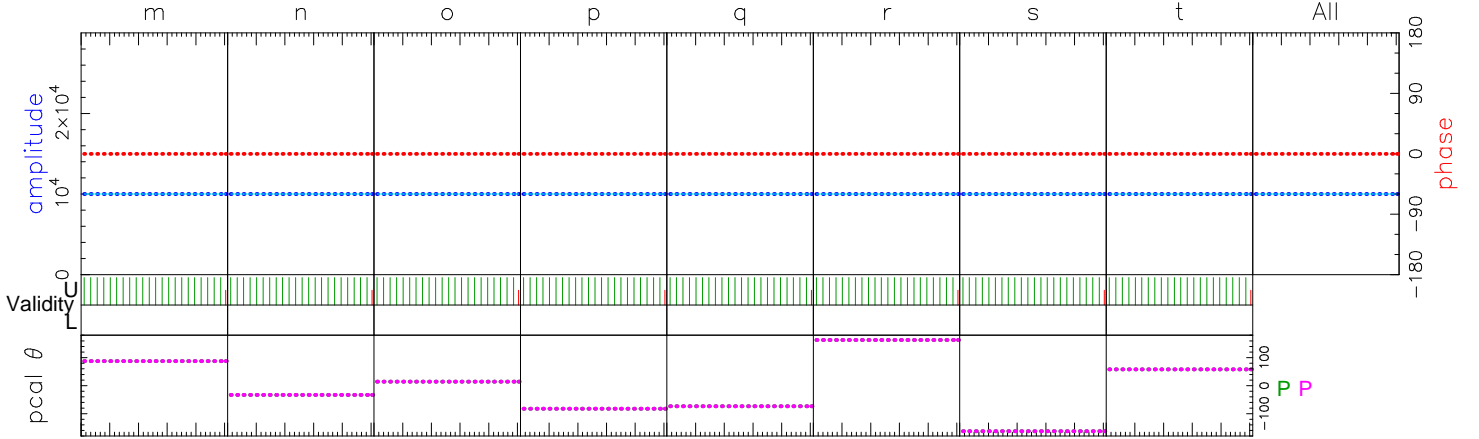
Fringe quality 9

SNR 473636.9
 Int time 299.983
 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. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:103128
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec

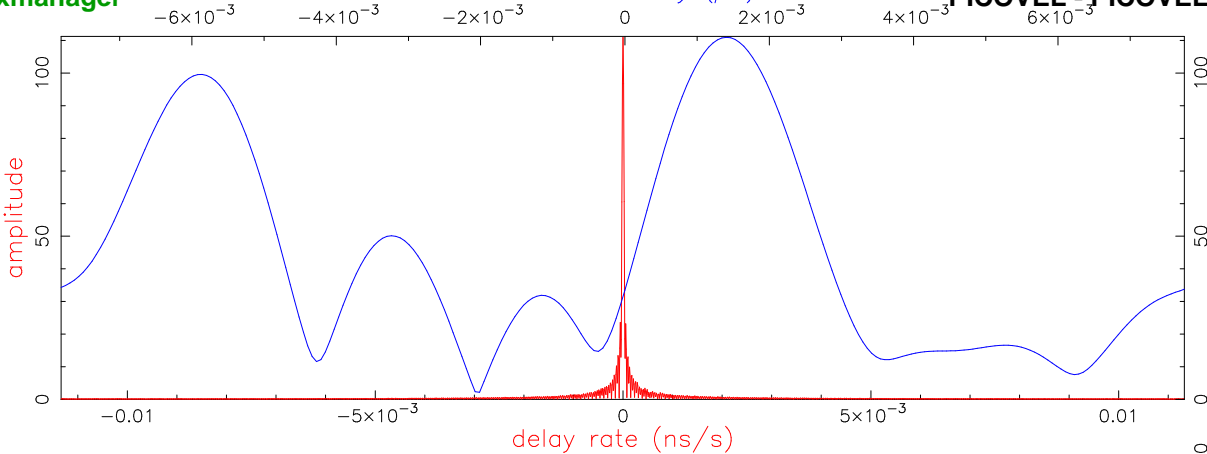


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0		
P	0	0	0	0	0	0	0	0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	88:88	-33:-33	15:15	-82:-82	-74:-74	163:163	-163:-163	58:58		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD)	0.0000000000E+00	Apriori delay (usec)	0.0000000000E+00	Resid mbdelay (usec)	0.00000E+00	+/-	2.3E-09
Sband delay (usec)	0.0000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.00000E+00	+/-	1.8E-08
Phase delay (usec)	0.0000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.00000E+00	+/-	7.8E-12
Delay rate (us/s)	0.0000000000E+00	Apriori rate (us/s)	0.0000000000E+00	Resid rate (us/s)	0.00000E+00	+/-	4.5E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.0000000000E+00	Resid phase (deg)	0.0	+/-	0.0

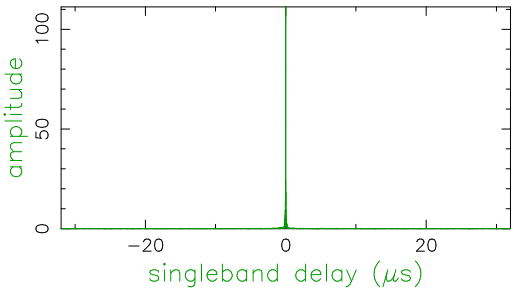
ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 9999.999 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 9999.999 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 P: az 294.6 el 49.7 pa 79.1 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/PP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/PP.W.42.37F3IW simultaneous interpolator

multiband delay (μ s)

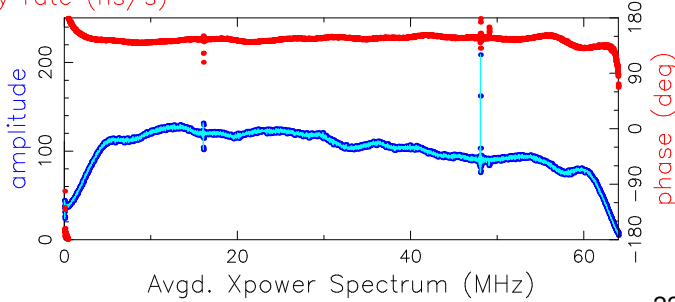


Fringe quality 5

SNR 5269.2
 Int time 299.983
 Amp 111.249
 Phase 46.0
 PFD 0.0e+00
 Delays (us)
 SBD -0.007144
 MBD 0.001424
 Fringe rate (Hz)
 -0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

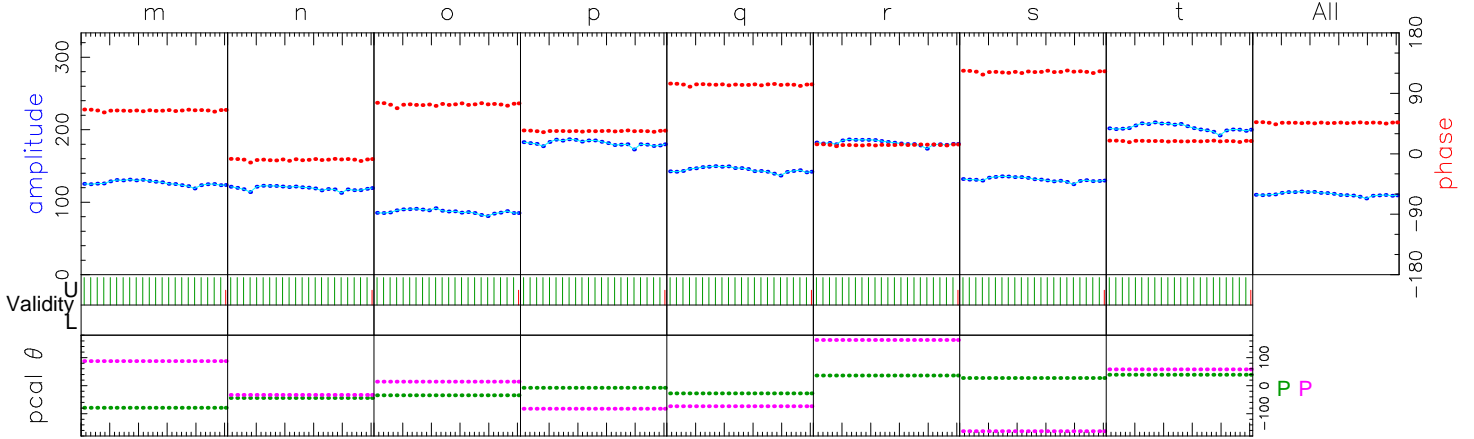


delay rate (ns/s)



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:103249
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0		
P	0	0	0	0	0	0	0	0		
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
P:P	-79:88	-44:-33	-34:15	-8:-82	-28:-74	36:163	27:-163	39:58		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) -1.42014687500E-02 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 1.42353E-03 +/- 2.1E-07
 Sband delay (usec) -7.14375000000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -7.14375E-03 +/- 1.6E-06
 Phase delay (usec) 1.48397730983E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 1.48398E-06 +/- 7.0E-10
 Delay rate (us/s) -1.55882676309E-11 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -1.55883E-11 +/- 4.0E-12
 Total phase (deg) 46.0 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) 46.0 +/- 0.0

RMS Theor. Amplitude 111.249 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.7 0.1 Search (2048X32) 110.822 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 amp/seg (%) 2.1 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 50.1 0.0 Inc. seg. avg. 110.974 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 45.8 0.1 Inc. frq. avg. 146.837 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 P: az 294.6 el 49.7 pa 79.1 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//PP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//PP.W.43.37F3IW

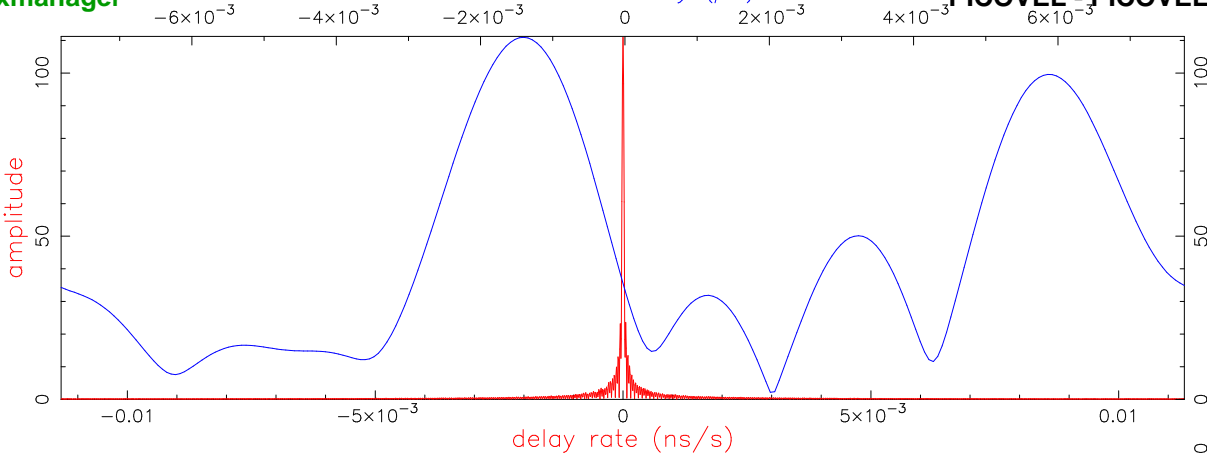
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, PP

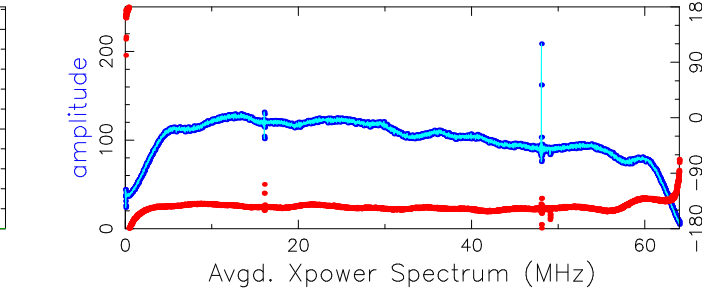
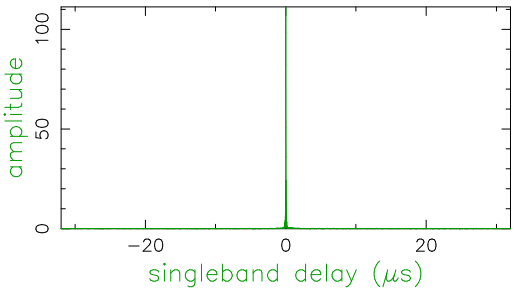
PICOVEL - PICOVEL, fgroup W, pol RL

multiband delay (μ s)



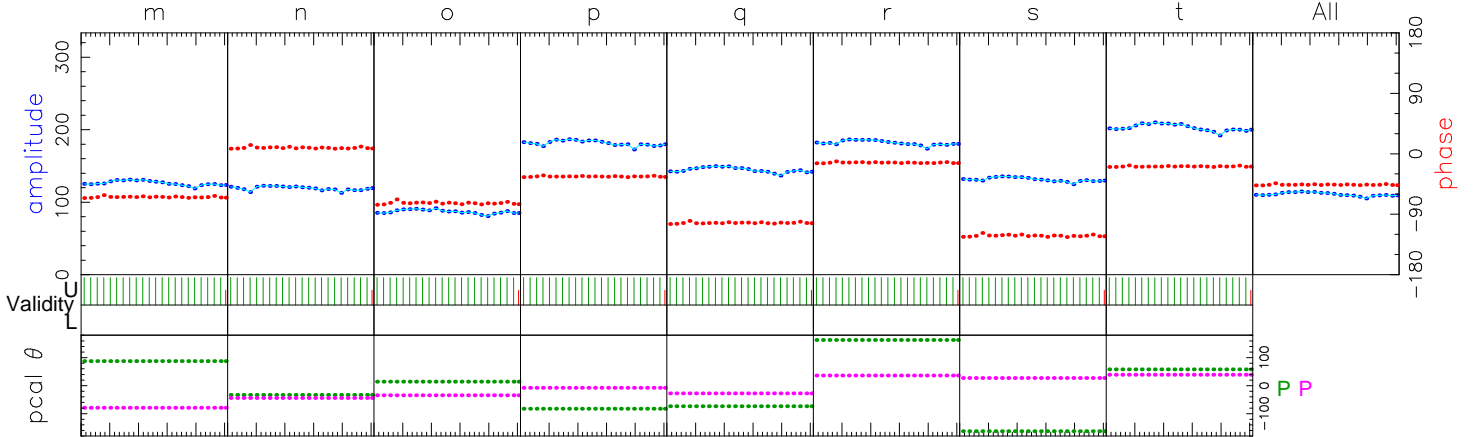
Fringe quality 5

SNR 5269.2
 Int time 299.983
 Amp 111.249
 Phase -46.0
 PFD 0.0e+00
 Delays (us)
 SBD 0.007144
 MBD -0.001424
 Fringe rate (Hz)
 0.000001
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:103411
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-64.3	9.0	-73.3	-33.7	-102.8	-13.1	-121.8	-18.8	Phase	-46.0
	126.4	119.2	86.9	181.6	144.5	181.9	131.3	202.9	Ampl.	146.8
	8195.2	8195.2	8195.4	8195.2	8195.7	8196.0	8195.3	8194.8	Sbd box	8194.8
U/L	586/0	586/0	586/0	586/0	586/0	586/0	586/0	586/0	APs used	
P	0	0	0	0	0	0	0	0	PC freqs	
P:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
P:P	88:-79	-33:-44	15:-34	-82:-8	-74:-28	163:36	-163:27	58:39	Mani PC	
P	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD) 1.42014687500E-02 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) -1.42353E-03 +/- 2.1E-07
 Sband delay (usec) 7.1437500000E-03 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 7.14375E-03 +/- 1.6E-06
 Phase delay (usec) -1.48397730988E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -1.48398E-06 +/- 7.0E-10
 Delay rate (us/s) 1.55882676309E-11 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 1.55883E-11 +/- 4.0E-12
 Total phase (deg) -46.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) -46.0 +/- 0.0

RMS Theor. Amplitude 111.249 +/- 0.021 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.7 0.1 Search (2048X32) 110.822 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 amp/seg (%) 2.1 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 50.1 0.0 Inc. seg. avg. 110.974 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 45.8 0.1 Inc. frq. avg. 146.837 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00

P: az 294.6 el 49.7 pa 79.1 P: az 294.6 el 49.7 pa 79.1 u, v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//PP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//PP.W.44.37F3IW

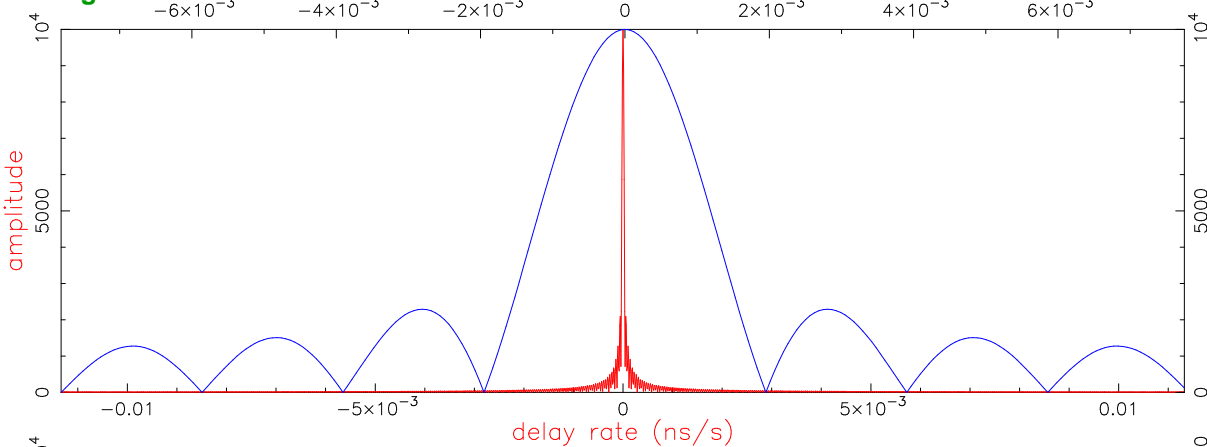
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, YY

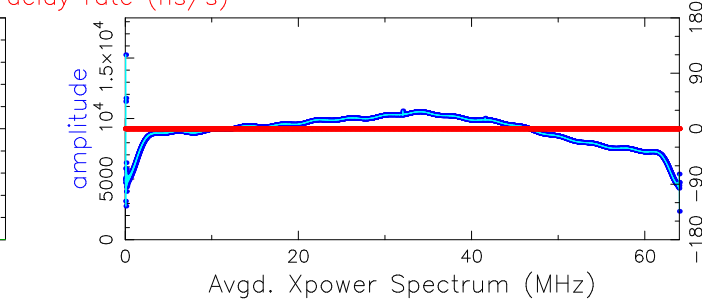
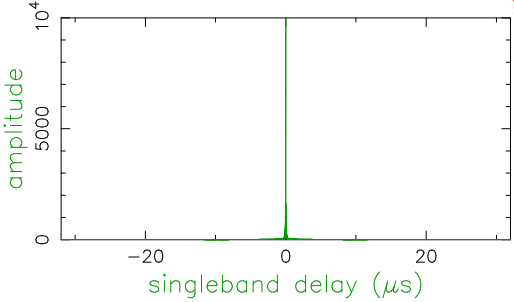
YEBES40M - YEBES40M, fgroup W, pol LL

multiband delay (μ s)



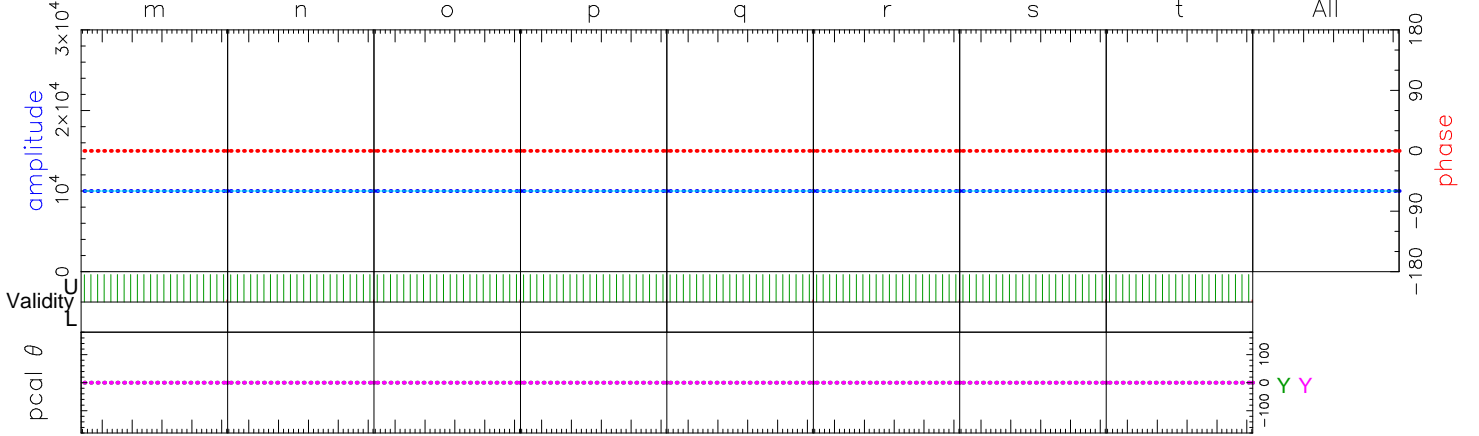
Fringe quality 9

SNR 459452.7
 Int time 282.284
 Amp 10000.002
 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. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:104617
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.97897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0		
Y	0	0	0	0	0	0	0	0		
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 0.000000000000E+00 Apriori delay (usec) 0.000000000000E+00 Resid mbdelay (usec) 0.000000E+00 +/- 2.4E-09
 Sband delay (usec) 0.000000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.000000E+00 +/- 1.9E-08
 Phase delay (usec) 0.000000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.000000E+00 +/- 8.0E-12
 Delay rate (us/s) 0.000000000000E+00 Apriori rate (us/s) 0.000000000000E+00 Resid rate (us/s) 0.000000E+00 +/- 4.9E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.000000000000E+00 Resid phase (deg) 0.0 +/- 0.0

RMS Theor. Amplitude 10000.002 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.002 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.002 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00

Y: az 290.8 el 50.8 pa 74.0 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//YY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//YY.W.53.37F3IW

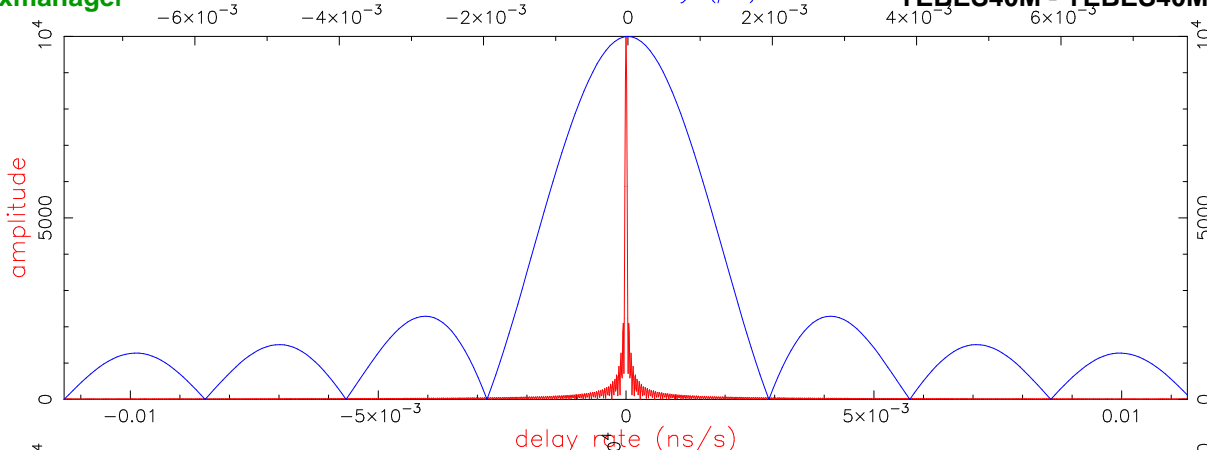
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, YY

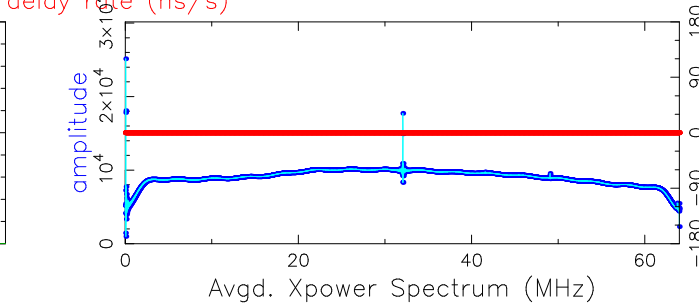
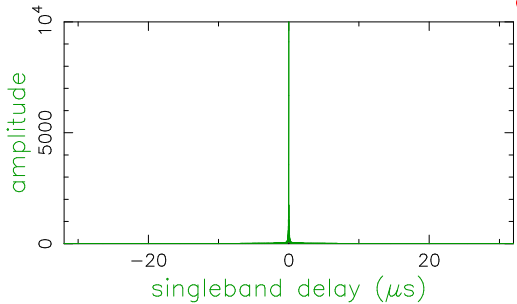
YEBES40M - YEBES40M, fgroup W, pol RR

multiband delay (μ s)



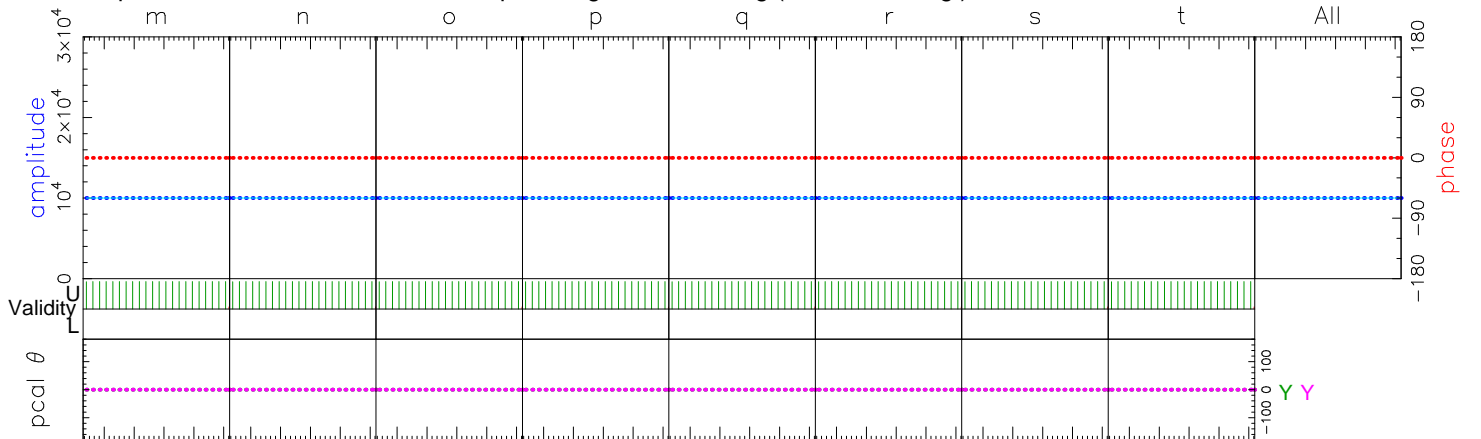
Fringe quality 9

SNR 459452.7
 Int time 282.284
 Amp 10000.002
 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. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:104732
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.97897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0		
Y	0	0	0	0	0	0	0	0		
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	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	+/-	2.4E-09
Sband delay (usec)	0.000000000000E+00	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	0.000000E+00	+/-	1.9E-08
Phase delay (usec)	0.000000000000E+00	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	0.000000E+00	+/-	8.0E-12
Delay rate (us/s)	0.000000000000E+00	Apriori rate (us/s)	0.000000000000E+00	Resid rate (us/s)	0.000000E+00	+/-	4.9E-14
Total phase (deg)	0.0	Apriori accel (us/s/s)	0.000000000000E+00	Resid phase (deg)	0.0	+/-	0.0

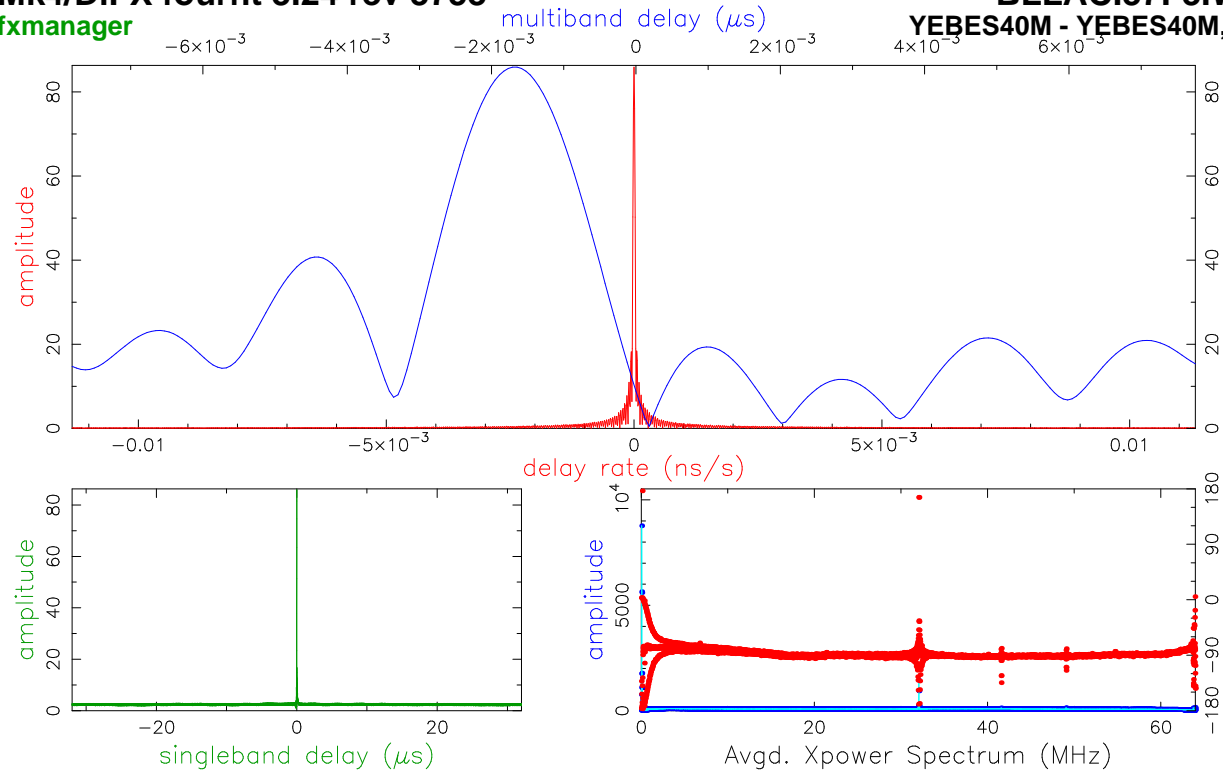
ph/seg (deg) 0.0 0.0 Theor. Amplitude 10000.002 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.002 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Y: az 290.8 el 50.8 pa 74.0 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/YY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/YY.W.54.37F3IW simultaneous interpolator

Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, YY

YEBES40M - YEBES40M, fgroup W, pol LR

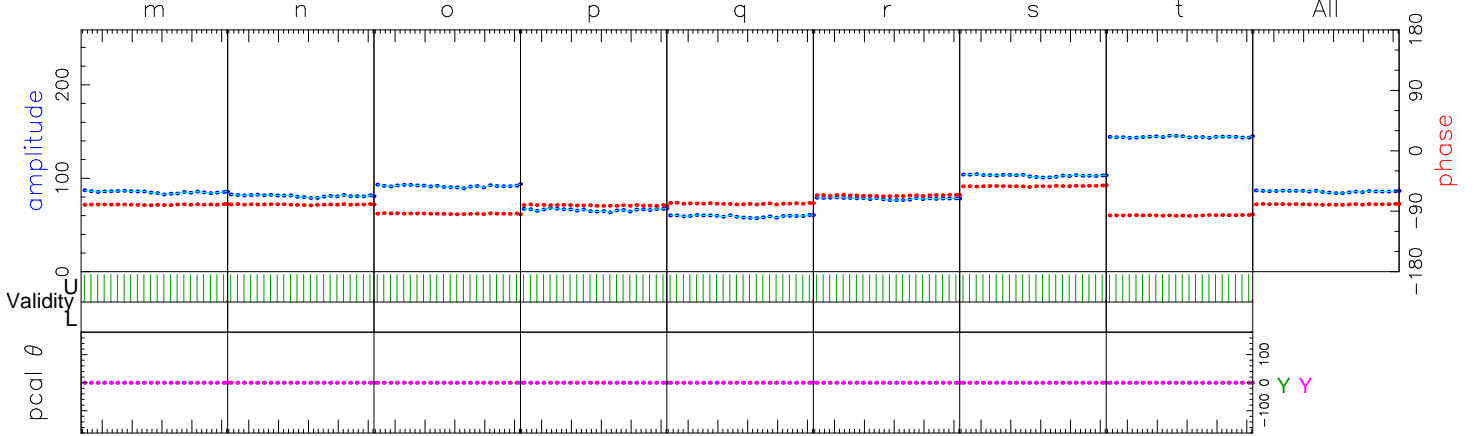


Fringe quality 7

SNR 3964.6
 Int time 282.284
 Amp 86.290
 Phase -79.7
 PFD 0.0e+00
 Delays (us)
 SBD -0.000877
 MBD -0.001702
 Fringe rate (Hz)
 -0.000012
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:104852
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-80.1	-80.0	-93.6	-81.1	-78.7	-66.5	-52.6	-96.0	Phase	-79.7
	85.3	81.2	91.6	66.1	59.4	78.3	102.9	144.2	Ampl.	88.6
	8192.4	8191.8	8192.7	8192.8	8192.8	8193.4	8192.4	8192.3	Sbd box	8192.8
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0	APs used	
Y	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD) -1.70225000000E-03 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) -1.70225E-03 +/- 2.7E-07
 Sband delay (usec) -8.76750000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -8.76750E-04 +/- 2.2E-06
 Phase delay (usec) -2.56860507191E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -2.56861E-06 +/- 9.3E-10
 Delay rate (us/s) -1.39585851058E-10 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) -1.39586E-10 +/- 5.7E-12
 Total phase (deg) -79.7 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -79.7 +/- 0.0

RMS Theor. Amplitude 86.290 +/- 0.022 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.4 0.1 Search (2048X32) 84.001 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 amp/seg (%) 1.0 0.1 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 15.1 0.0 Inc. seg. avg. 85.887 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 28.6 0.1 Inc. frq. avg. 88.618 Data rate(Mb/s): 2048 nlags: 8192_t_cohere infinite ion window (TEC) 0.00 0.00

Y: az 290.8 el 50.8 pa 74.0 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/YY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/YY.W.55.37F3IW

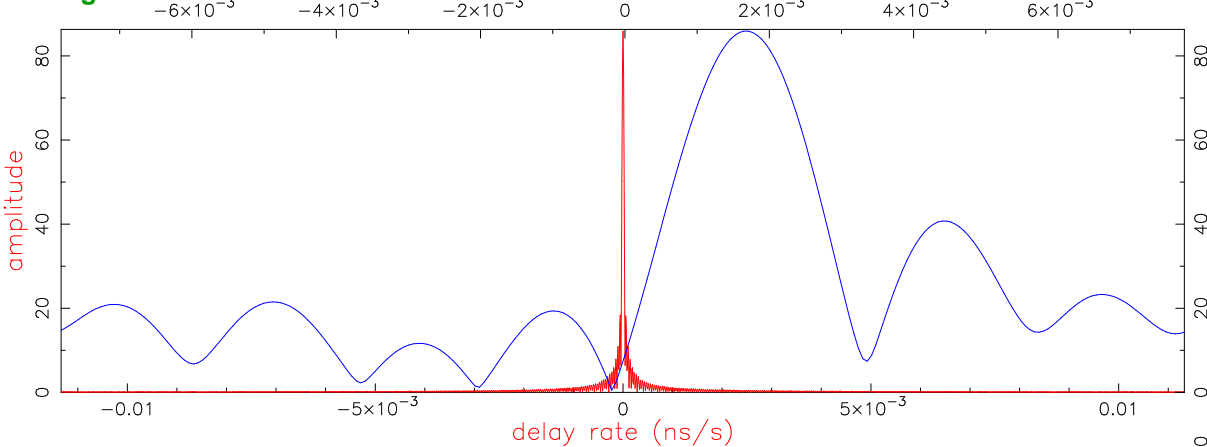
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

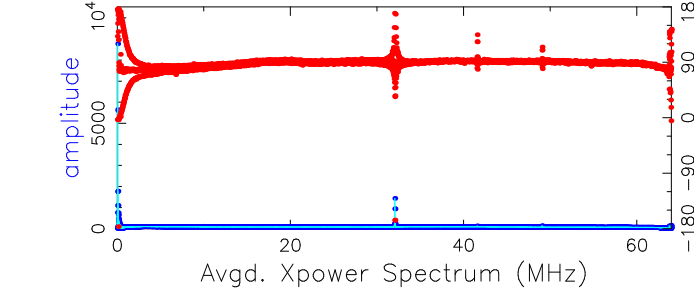
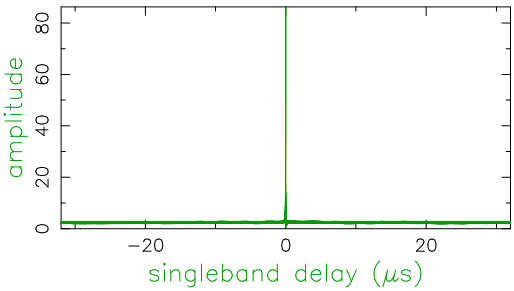
BLLAC.37F3IW, No0001, YY

YEBES40M - YEBES40M, fgroup W, pol RL

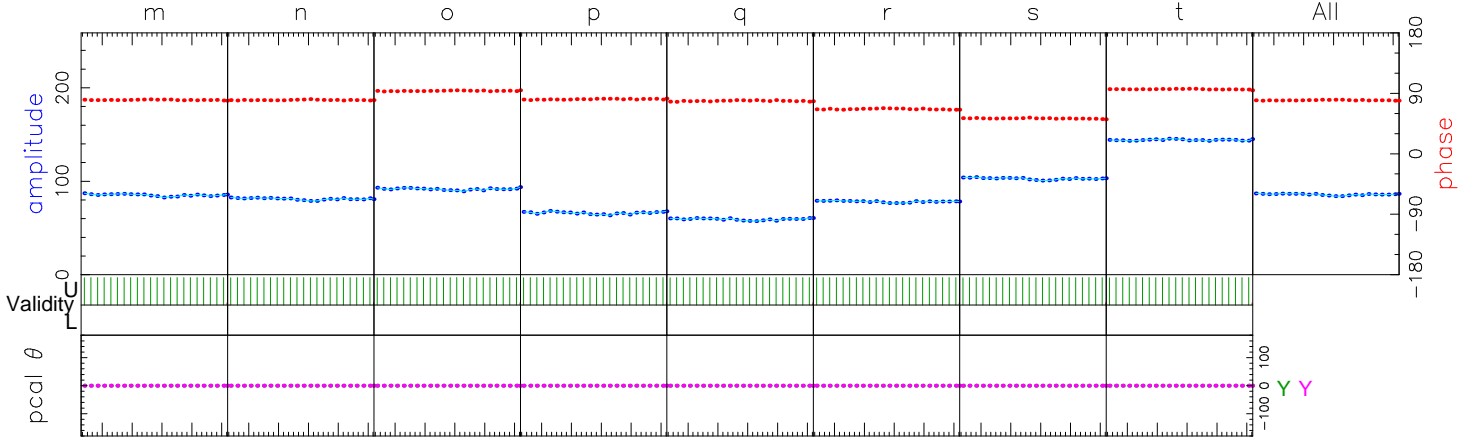
multiband delay (μ s)



Fringe quality 7
 SNR 3964.6
 Int time 282.284
 Amp 86.290
 Phase 79.7
 PFD 0.0e+00
 Delays (us)
 SBD 0.000877
 MBD 0.001702
 Fringe rate (Hz) 0.000012
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:105010
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	80.1	80.0	93.6	81.1	78.7	66.5	52.6	96.0	Phase	79.7
	85.3	81.2	91.6	66.1	59.4	78.3	102.9	144.2	Ampl.	88.6
	8193.6	8194.2	8193.3	8193.2	8193.2	8192.6	8193.6	8193.7	Sbd box	8193.2
U/L	552/0	552/0	552/0	552/0	552/0	552/0	552/0	552/0	APs used	
Y	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Y:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	1.70225000000E-03	Apriori delay (usec)	0.00000000000E+00	Resid mbdelay (usec)	1.70225E-03	+/-	2.7E-07
Sband delay (usec)	8.76750000000E-04	Apriori clock (usec)	0.0000000E+00	Resid sbdelay (usec)	8.76750E-04	+/-	2.2E-06
Phase delay (usec)	2.56860507191E-06	Apriori clockrate (us/s)	0.0000000E+00	Resid phdelay (usec)	2.56861E-06	+/-	9.3E-10
Delay rate (us/s)	1.39585851058E-10	Apriori rate (us/s)	0.00000000000E+00	Resid rate (us/s)	1.39586E-10	+/-	5.7E-12
Total phase (deg)	79.7	Apriori accel (us/s/s)	0.00000000000E+00	Resid phase (deg)	79.7	+/-	0.0

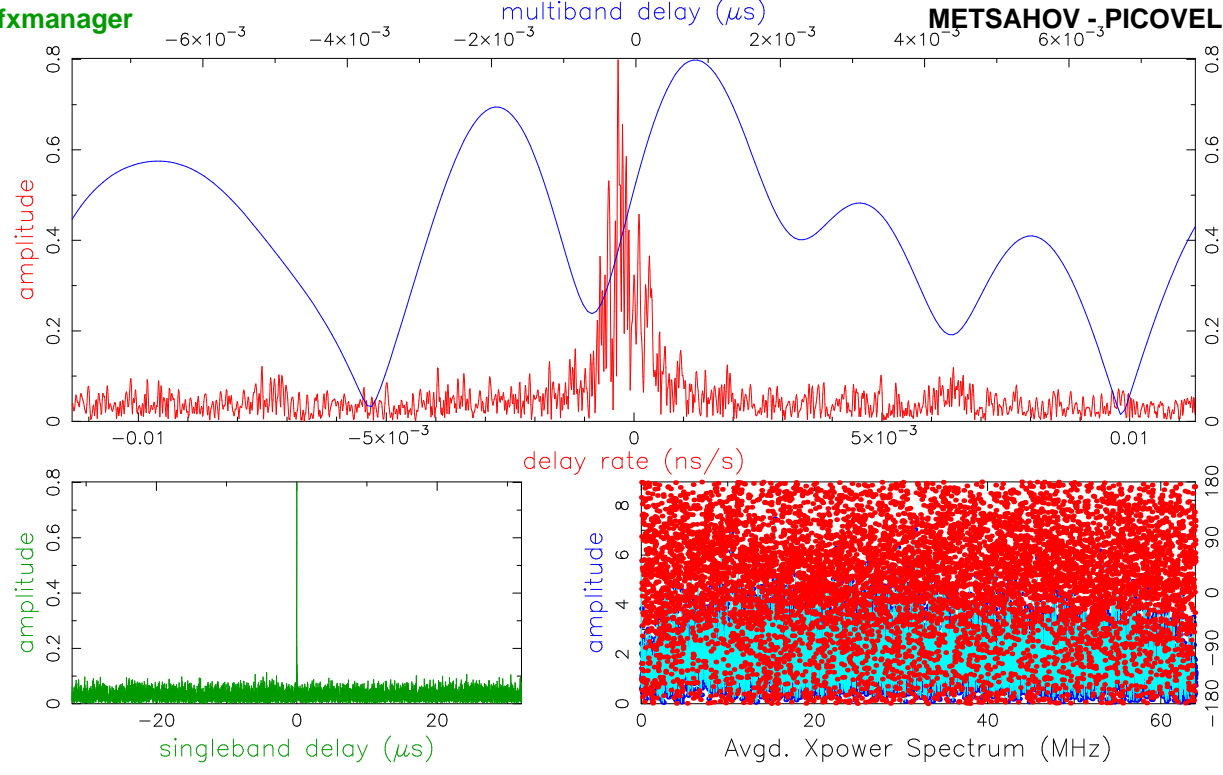
ph/seg (deg) 0.4 0.1 Search (2048X32) 84.001 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 1.0 0.1 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 15.1 0.0 Inc. seg. avg. 85.887 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 28.6 0.1 Inc. frq. avg. 88.618 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Y: az 290.8 el 50.8 pa 74.0 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/YY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/YY.W.56.37F3IW

Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, ZP

METSAROV - PICOVEL, fgroup W, pol LL

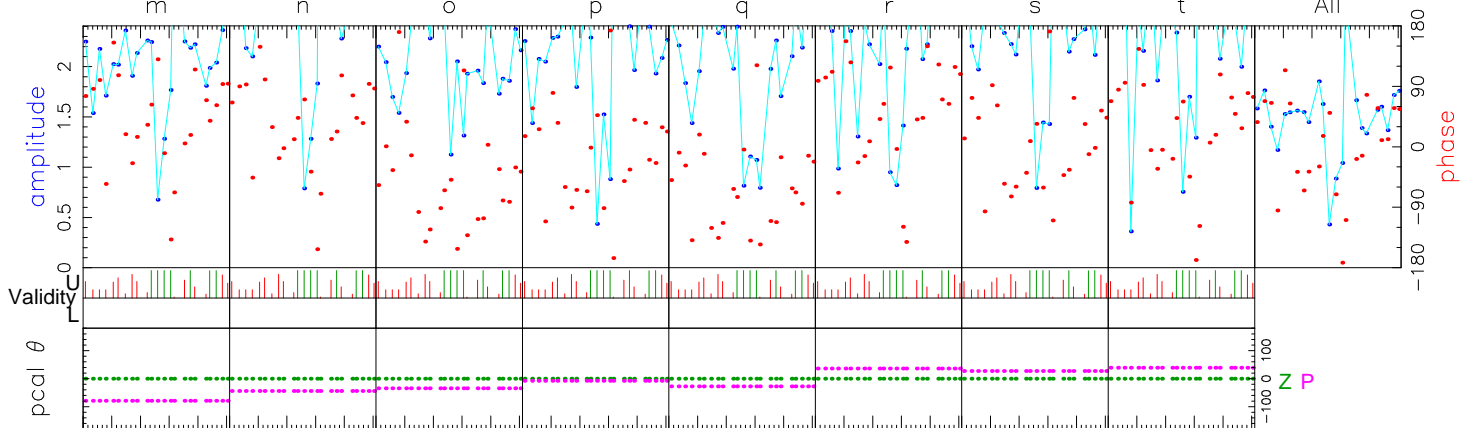


Fringe quality 3

SNR 30.2
 Int time 189.194
 Amp 0.802
 Phase 16.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.000805
 MBD 0.000805
 Fringe rate (Hz)
 -0.027630
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:102441
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



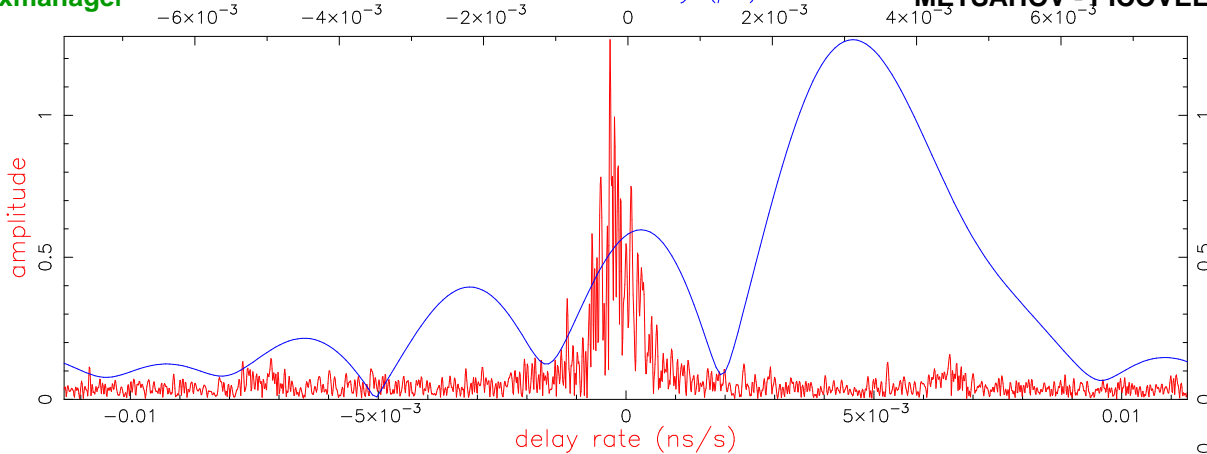
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0		
Z	0	0	0	0	0	0	0	0		
P	0	0	0	0	0	0	0	0		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) -2.49293951267E+03 Apriori delay (usec) -2.49294031747E+03 Resid mbdelay (usec) 8.04797E-04 +/- 3.6E-05
 Sband delay (usec) -2.49294112197E+03 Apriori clock (usec) 1.0334511E+00 Resid sbdelay (usec) -8.04500E-04 +/- 2.9E-04
 Phase delay (usec) -2.49294031694E+03 Apriori clockrate (us/s) 4.3535206E-07 Resid phdelay (usec) 5.26579E-07 +/- 1.2E-07
 Delay rate (us/s) 1.71428338550E-01 Apriori rate (us/s) 1.71428659310E-01 Resid rate (us/s) -3.20760E-07 +/- 1.0E-09
 Total phase (deg) -324.6 Apriori accel (us/s/s) 3.34421513739E-05 Resid phase (deg) 16.3 +/- 3.8

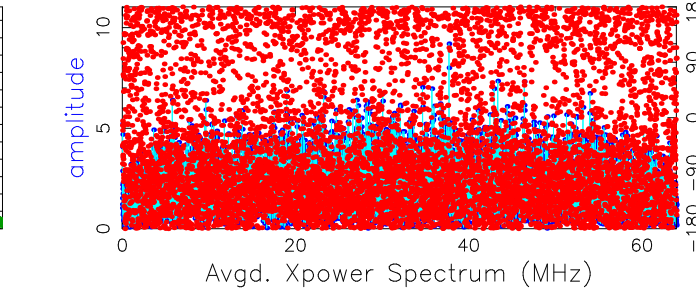
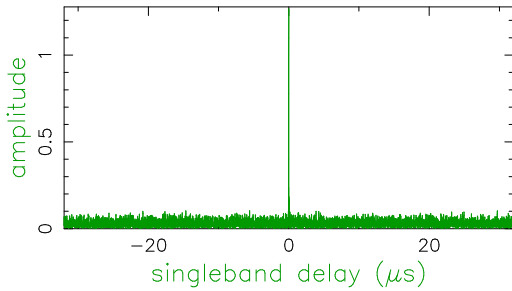
ph/seg (deg) 67.7 7.6 Search (2048X32) 0.788 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 85.8 13.3 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 62.9 5.4 Inc. seg. avg. 1.371 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 62.8 9.4 Inc. frq. avg. 1.285 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Z: az 287.5 el 40.2 pa 39.8 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) -1283.663 4145.398 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//ZP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//ZP.W.37.37F3IW

multiband delay (μ s)

Fringe quality 3

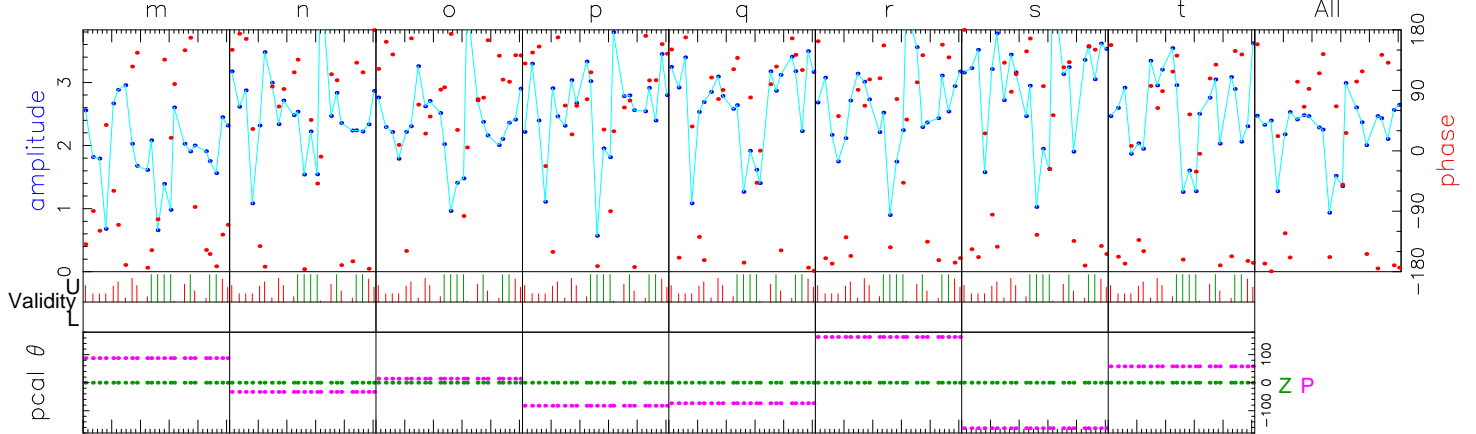


SNR 48.1
 Int time 189.194
 Amp 1.278
 Phase 145.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.005182
 MBD 0.003090
 Fringe rate (Hz)
 -0.027698
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:102603
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-151.4	137.1	106.4	112.0	144.4	154.2	165.9	145.1	Phase	145.3	
	1.1	1.5	1.3	1.4	1.7	1.4	1.7	1.4	Ampl.	1.4	
	8189.8	8191.0	8191.1	8191.9	8191.8	8191.4	8192.1	8191.1	Sbd box	8191.7	
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used		
Z	0	0	0	0	0	0	0	0	PC freqs		
P	0	0	0	0	0	0	0	0	PC freqs		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Z:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Manl PC		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-2.49295285264E+03		Apriori delay (usec)		-2.49294031747E+03		Resid mbdelay (usec)		3.08983E-03	+/- 2.3E-05	
Sband delay (usec)	-2.49294549972E+03		Apriori clock (usec)		1.0334511E+00		Resid sbdelay (usec)		-5.18225E-03	+/- 1.8E-04	
Phase delay (usec)	-2.49294031279E+03		Apriori clockrate (us/s)		4.3535206E-07		Resid phdelay (usec)		4.68583E-06	+/- 7.7E-08	
Delay rate (us/s)	1.71428337769E-01		Apriori rate (us/s)		1.71428659310E-01		Resid rate (us/s)		-3.21541E-07	+/- 6.3E-10	
Total phase (deg)			Apriori accel (us/s/s)		3.34421513739E-05		Resid phase (deg)		145.3	+/- 2.4	
	RMS	Theor.	Amplitude	1.278 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	67.0	4.8	Search (2048X32)	1.232		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-32.000	32.000	
amp/seg (%)	77.8	8.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008	0.008
ph/frq (deg)	34.7	3.4	Inc. seg. avg.	2.122		Data rate(Mb/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011	0.011	
amp/frq (%)	18.4	5.9	Inc. frq. avg.	1.420		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite	ion window (TEC)	0.00	0.00
Z: az 287.5 el 40.2 pa 39.8	P: az 294.6 el 49.7 pa 79.1		u, v (fr/asec) -1283.663 4145.398						simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001//ZP..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001//ZP.W.38.37F3IW								

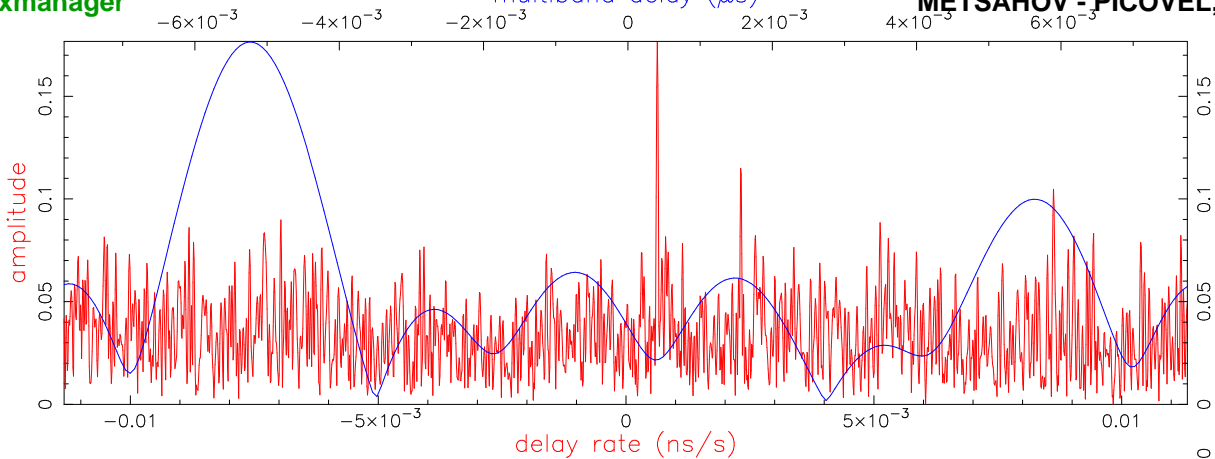
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, ZP

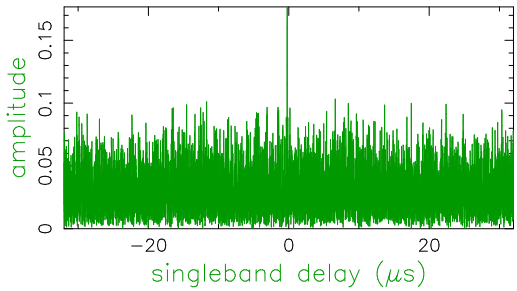
METSAHOV - PICOVEL, fgroup W, pol LR

multiband delay (μ s)

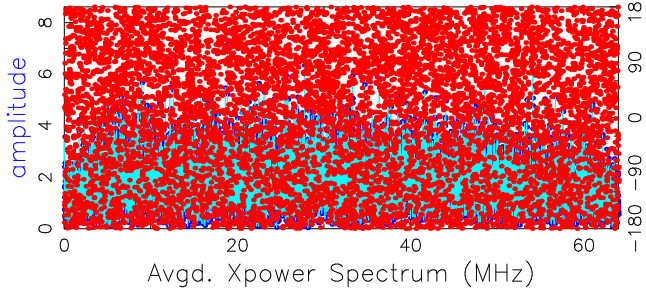


Fringe quality 0

SNR 6.6
 Int time 189.194
 Amp 0.177
 Phase 84.7
 PFD 2.5e-01
 Delays (us)
 SBD -0.226299
 MBD -0.005232
 Fringe rate (Hz)
 0.054026
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

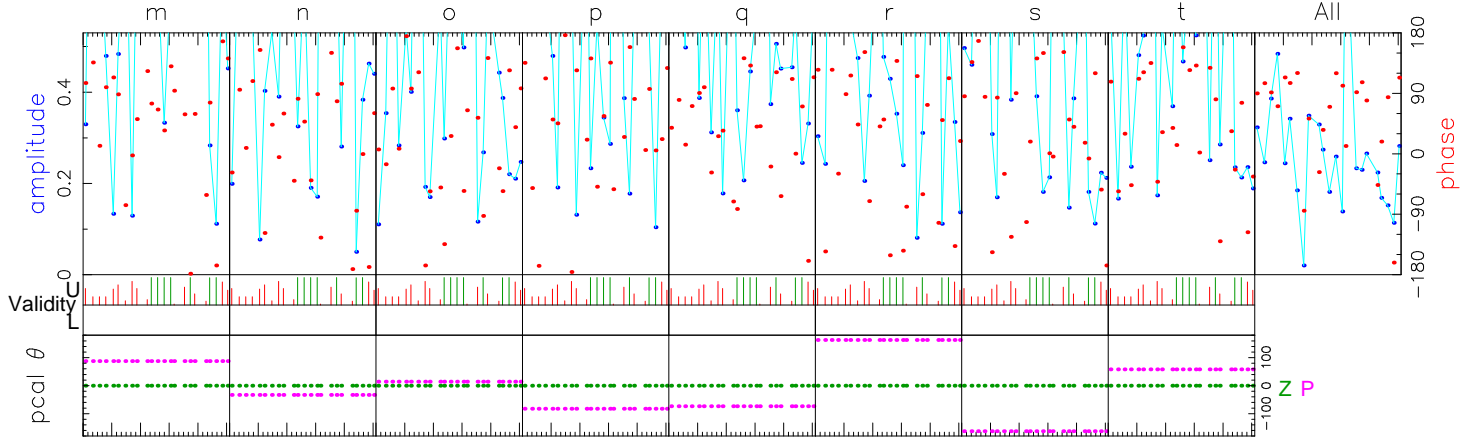


delay rate (ns/s)



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:102727
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
U/L	8135.8	8924.1	14662.1	7898.1	7792.8	8975.5	3382.3	8883.9	Sbd box	8135.1	
Z	0	0	0	0	0	0	0	0	APs used		
P	0	0	0	0	0	0	0	0	PC freqs		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Z:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	Mani PC		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
Group delay (usec) (SBD)	-2.49316429985E+03								Apriori delay (usec)	-2.49294031747E+03	+/- 1.6E-04
Sband delay (usec)	-2.49316661672E+03								Apriori clock (usec)	1.0334511E+00	+/- 1.3E-03
Phase delay (usec)	-2.49294031474E+03								Apriori clockrate (us/s)	4.3535206E-07	+/- 5.6E-07
Delay rate (us/s)	1.71429286502E-01								Apriori rate (us/s)	1.71428659310E-01	+/- 4.6E-09
Total phase (deg)			-256.2						Apriori accel (us/s/s)	3.34421513739E-05	+/- 17.3
RMS	60.3	34.7							Resid mbdelay (usec)	-5.23238E-03	
ph/seg (deg)	60.3	34.7							Resid sbdelay (usec)	-2.26299E-01	
amp/seg (%)	62.4	60.6							Resid phdelay (usec)	2.73271E-06	
ph/frq (deg)	19.8	24.4							Resid rate (us/s)	6.27191E-07	
amp/frq (%)	47.3	42.6							Resid phase (deg)	84.7	
Z: az 287.5 el 40.2 pa 39.8									PCal mode: MANUAL, MANUAL		
Control file: cf_1234_gmva									PCal rate: 0.000E+00, 0.000E+00 (us/s)		
									Bits/sample: 2x2		
									SampCntNorm: enabled		
									Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		
									Data rate(Mb/s): 2048		
									nlags: 8192 t_cohere infinite		
									ion window (TEC)	0.00	0.00
									simultaneous interpolator		
									Input file: /Exps/f241a/FRINGE/1234/No0001//ZP..37F3IW		
									Output file: /Exps/f241a/FRINGE/1234/No0001//ZP.W.39.37F3IW		

Mk4/DiFX fourfit 3.24 rev 3753

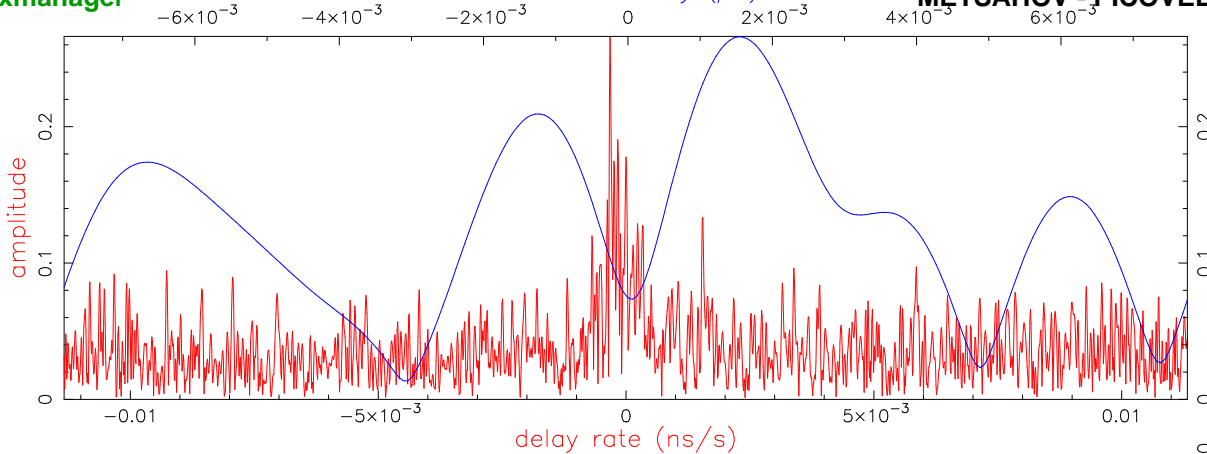
fxmanager

BLLAC.37F3IW, No0001, ZP

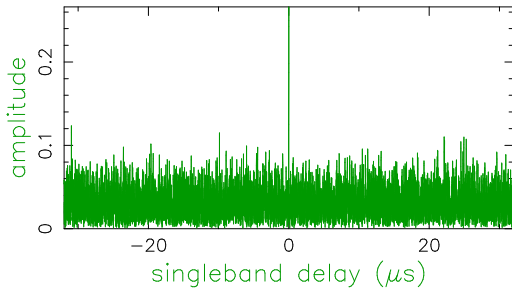
METSAHOV - PICOVEL, fgroup W, pol RL

multiband delay (μ s)

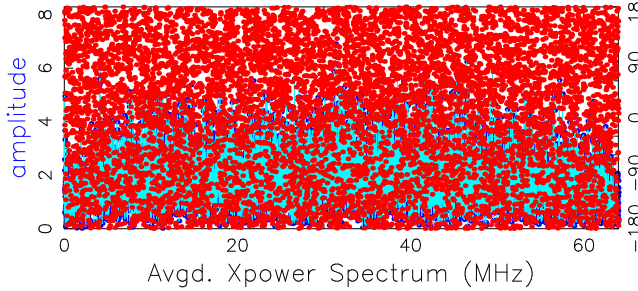
Fringe quality 9



SNR 10.0
 Int time 189.194
 Amp 0.266
 Phase 79.8
 PFD 1.9e-13
 Delays (us)
 SBD 0.000383
 MBD 0.001557
 Fringe rate (Hz)
 -0.027382
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

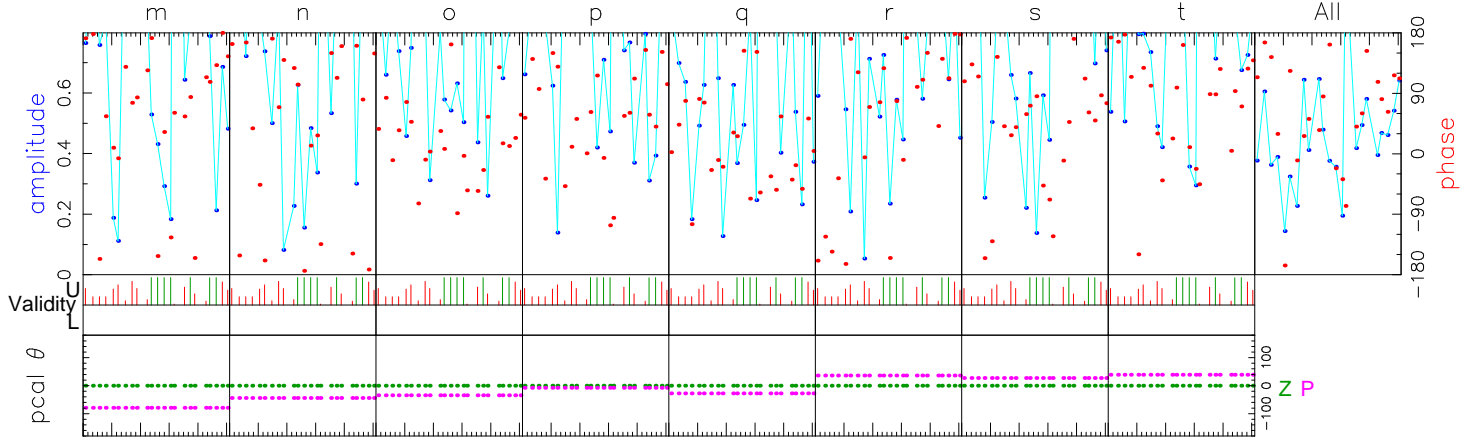


delay rate (ns/s)



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:102849
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



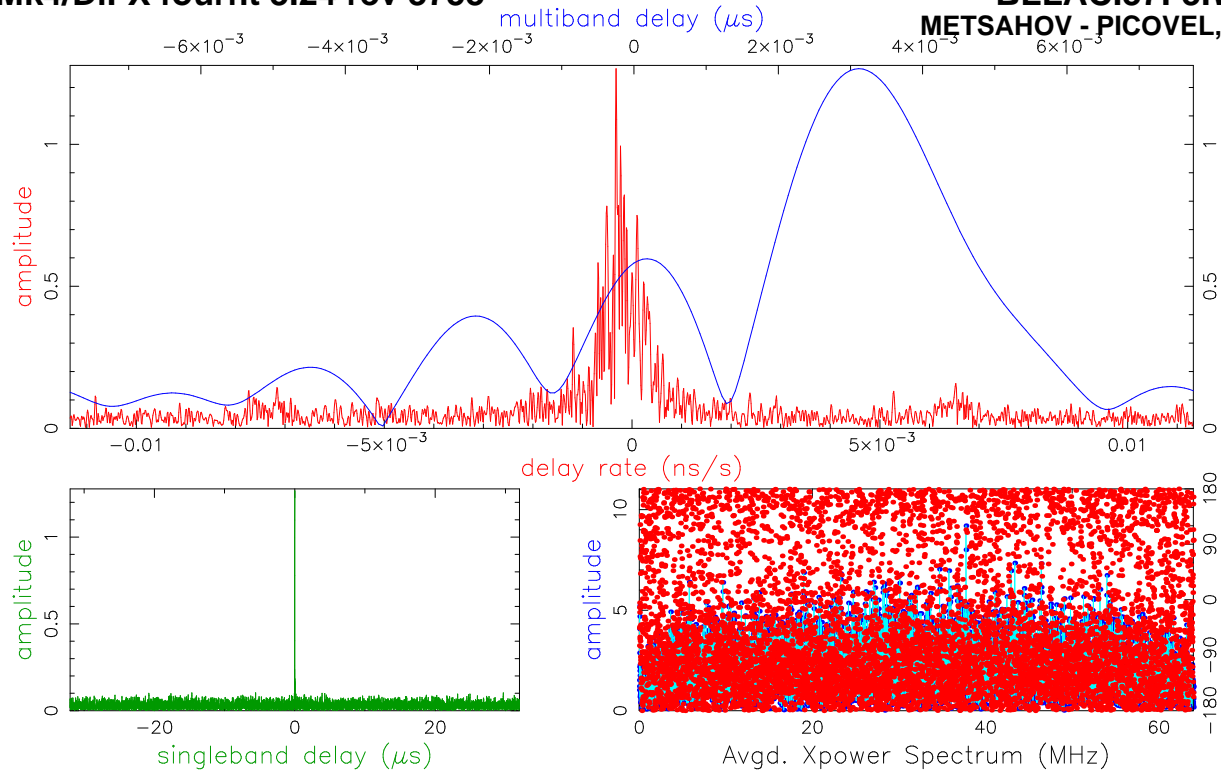
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0		
Z	0	0	0	0	0	0	0	0	PC freqs	
P	0	0	0	0	0	0	0	0	PC freqs	
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:P	0:-79	0:-44	0:-34	0:-8	0:-28	0:36	0:27	0:39	ManI PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
P	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
P	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-2.49293876030E+03	Apriori delay (usec)	-2.49294031747E+03	Resid mbdelay (usec)	1.55717E-03	+/-	1.1E-04
Sband delay (usec)	-2.49293993447E+03	Apriori clock (usec)	1.0334511E+00	Resid sbdelay (usec)	3.83000E-04	+/-	8.6E-04
Phase delay (usec)	-2.49294031490E+03	Apriori clockrate (us/s)	4.3535206E-07	Resid phdelay (usec)	2.57423E-06	+/-	3.7E-07
Delay rate (us/s)	1.71428341433E-01	Apriori rate (us/s)	1.71428659310E-01	Resid rate (us/s)	-3.17877E-07	+/-	3.0E-09
Total phase (deg)	-261.1	Apriori accel (us/s/s)	3.34421513739E-05	Resid phase (deg)	79.8	+/-	11.4

ph/seg (deg)	62.7	RMS	23.0	Theor.	23.0	Amplitude	0.266 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5
amp/seg (%)	79.9	Search (2048X32)	0.258	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000	32.000	
ph/frq (deg)	57.4	Inc. seg. avg.	0.387	Inc. frq. avg.	0.382	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008	0.008
amp/frq (%)	53.0	Data rate (MSamp/s):	128 MBpts 32 Amb 0.016 us	Data rate (Mb/s):	2048	nlags:	8192 t_cohere infinite	ion window (ns/s)	-0.011	0.011	

Z: az 287.5 el 40.2 pa 39.8 P: az 294.6 el 49.7 pa 79.1 u,v (fr/asec) -1283.663 4145.398 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//ZP..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//ZP.W.40.37F3IW

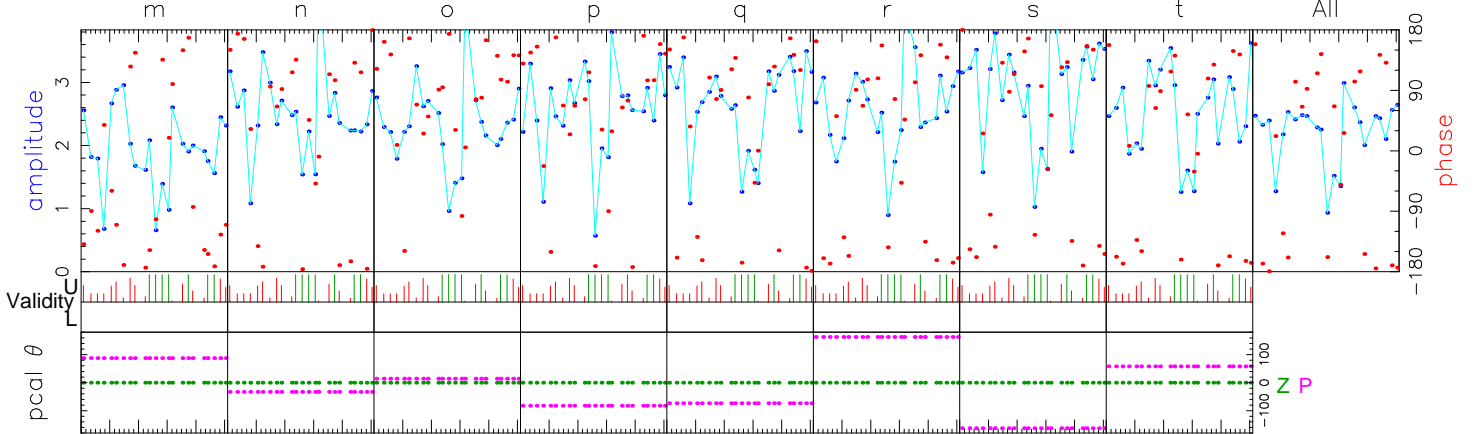


Fringe quality 3

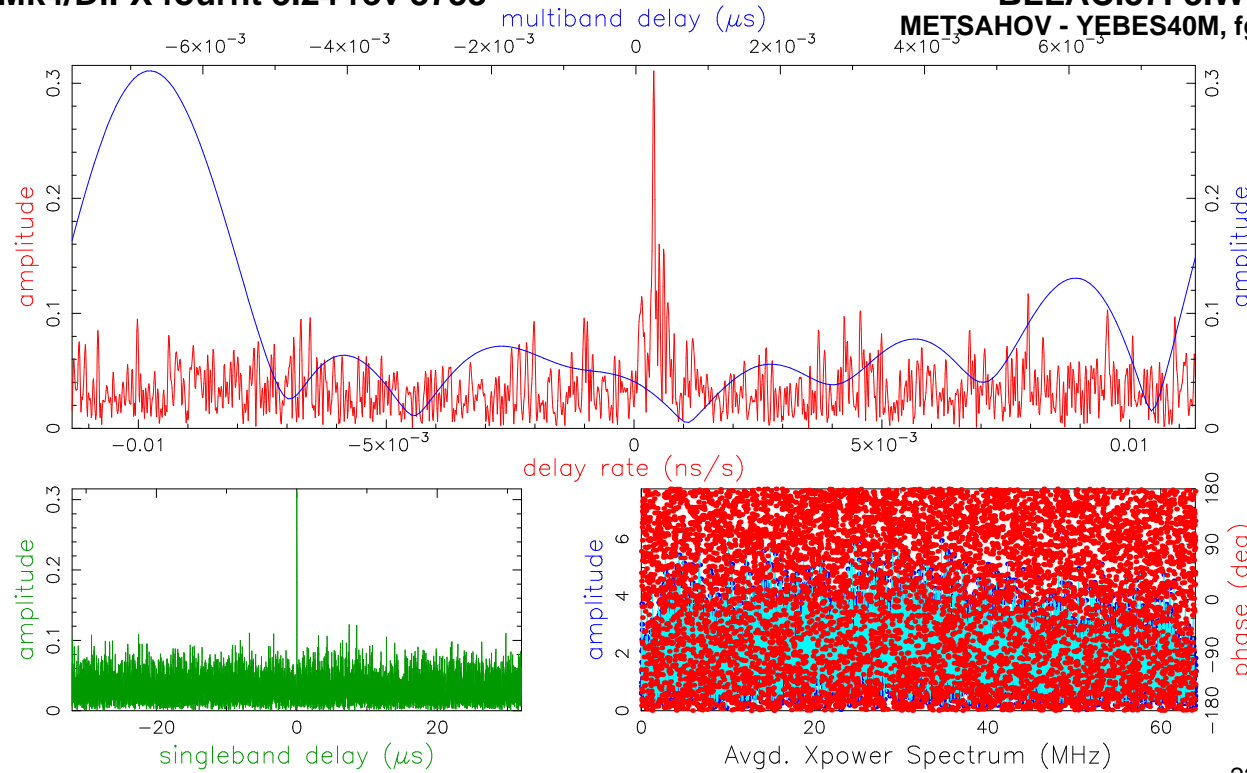
SNR 48.1
 Int time 189.194
 Amp 1.278
 Phase 145.3
 PFD 0.0e+00
 Delays (us)
 SBD -0.005182
 MBD 0.003090
 Fringe rate (Hz)
 -0.027698
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:095258
 2023:314:152938
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	-151.4	137.1	106.4	112.0	144.4	154.2	165.9	145.1	Phase	145.3	
	1.1	1.5	1.3	1.4	1.7	1.4	1.7	1.4	Ampl.	1.4	
	8189.8	8191.0	8191.1	8191.9	8191.8	8191.4	8192.1	8191.1	Sbd box	8191.7	
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used		
Z	0	0	0	0	0	0	0	0	PC freqs		
P	0	0	0	0	0	0	0	0	PC freqs		
Z:P	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Z:P	0:88	0:33	0:15	0:82	0:74	0:163	0:163	0:58	ManI PC		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
P	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
P	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-2.49295285264E+03		Apriori delay (usec)		-2.49294031747E+03		Resid mbdelay (usec)		3.08983E-03	+/- 2.3E-05	
Sband delay (usec)	-2.49294549972E+03		Apriori clock (usec)		1.0334511E+00		Resid sbdelay (usec)		-5.18225E-03	+/- 1.8E-04	
Phase delay (usec)	-2.49294031279E+03		Apriori clockrate (us/s)		4.3535206E-07		Resid phdelay (usec)		4.68583E-06	+/- 7.7E-08	
Delay rate (us/s)	1.71428337769E-01		Apriori rate (us/s)		1.71428659310E-01		Resid rate (us/s)		-3.21541E-07	+/- 6.3E-10	
Total phase (deg)			Apriori accel (us/s/s)		3.34421513739E-05		Resid phase (deg)		145.3	+/- 2.4	
	RMS	Theor.	Amplitude		1.278 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5		
ph/seg (deg)	67.0	4.8	Search (2048X32)		1.232		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-32.000 32.000	
amp/seg (%)	77.8	8.4	Interp.		0.000		Bits/sample: 2x2		SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	34.7	3.4	Inc. seg. avg.		2.122		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011	
amp/frq (%)	18.4	5.9	Inc. frq. avg.		1.420		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite	ion window (TEC)	0.00 0.00
Z: az 287.5 el 40.2 pa 39.8	P: az 294.6 el 49.7 pa 79.1		u, v (fr/asec)		-1283.663 4145.398				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/ZP..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/ZP.W.5.37F3IW								

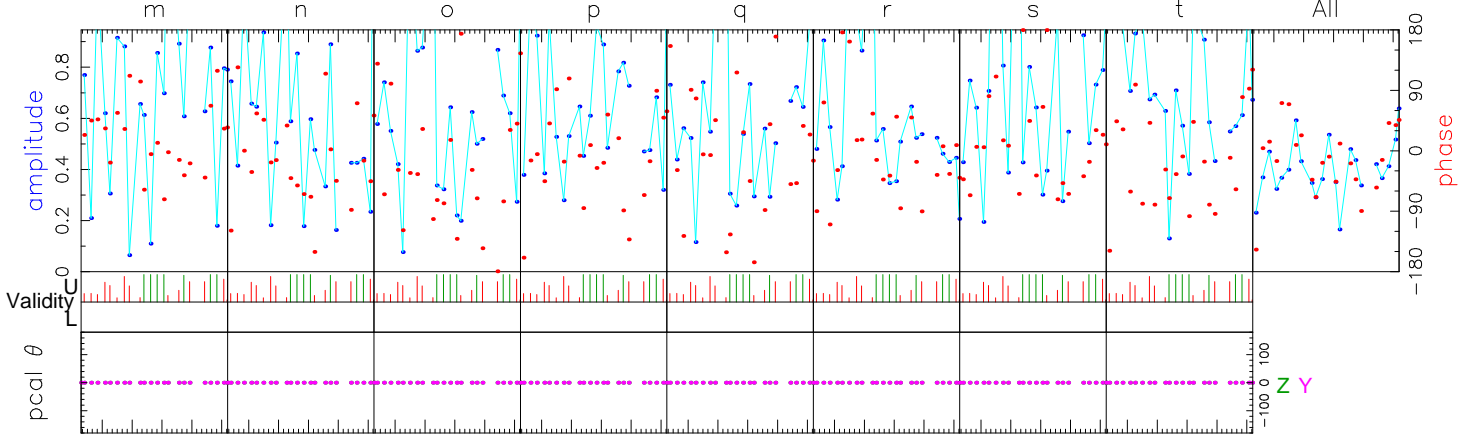


Fringe quality 9

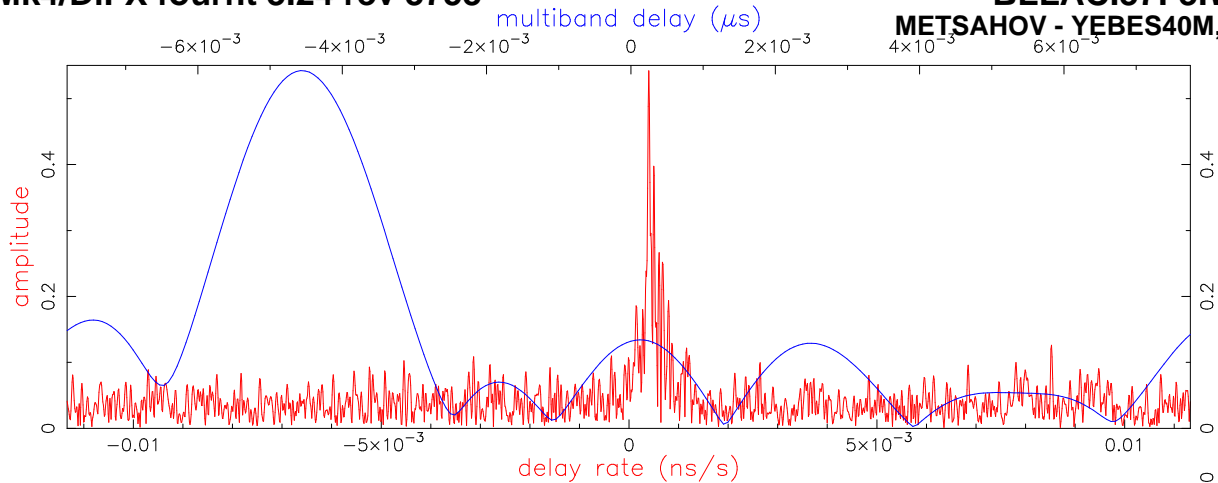
SNR 11.6
 Int time 180.037
 Amp 0.315
 Phase -9.6
 PFD 9.2e-21
 Delays (us)
 SBD 0.010019
 MBD -0.006762
 Fringe rate (Hz)
 0.034218
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512

Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:095516
 2023:314:152938
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec

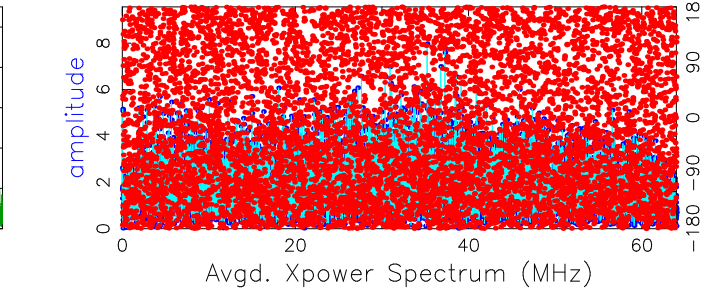
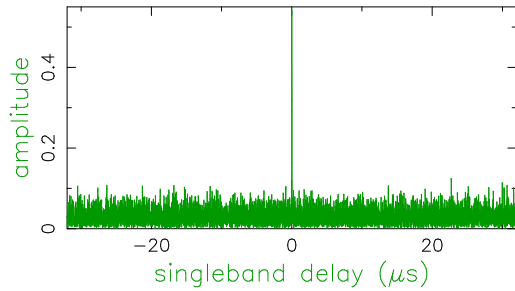


	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	388/0	388/0	388/0	388/0	388/0	388/0	388/0	388/0	Sbd box	8195.6
Z	0	0	0	0	0	0	0	0	Phase	-9.6
Y	0	0	0	0	0	0	0	0	Ampl.	0.3
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z	1000	1000	1000	1000	1000	1000	1000	1000	Manl PC	
Y	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	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)	-2.64655489212E+03								Resid mbdelay (usec)	-6.76160E-03 +/- 9.4E-05
Sband delay (usec)	-2.64655373652E+03								Resid sbdelay (usec)	1.00190E-02 +/- 7.4E-04
Phase delay (usec)	-2.64656375583E+03								Resid phdelay (usec)	-3.09230E-07 +/- 3.2E-07
Delay rate (us/s)	1.39276659264E-01								Resid rate (us/s)	3.97232E-07 +/- 2.8E-09
Total phase (deg)		-333.7							Resid phase (deg)	-9.6 +/- 9.9
	RMS	Theor.	Amplitude	0.315 +/- 0.027					Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5
ph/seg (deg)	45.4	19.9	Search (2048X32)	0.308					Pcal rate: 0.000E+00, 0.000E+00 (us/s)	sb window (us) -32.000 32.000
amp/seg (%)	41.3	34.8	Interp.	0.000					Bits/sample: 2x2	SampCntNorm: enabled mb window (us) -0.008 0.008
ph/frq (deg)	17.5	14.0	Inc. seg. avg.	0.375					Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us	dr window (ns/s) -0.011 0.011
amp/frq (%)	23.3	24.4	Inc. frq. avg.	0.311					Data rate(Mb/s): 2048	nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
Z: az 287.5 el 40.2 pa 39.8		Y: az 290.8 el 50.8 pa 74.0		u, v (fr/asec) -1037.635 3681.388						simultaneous interpolator
Control file: cf_1234_gmva		Input file: /Exps/f241a/FRINGE/1234/No0001/ZY..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/ZY.W.12.37F3IW						



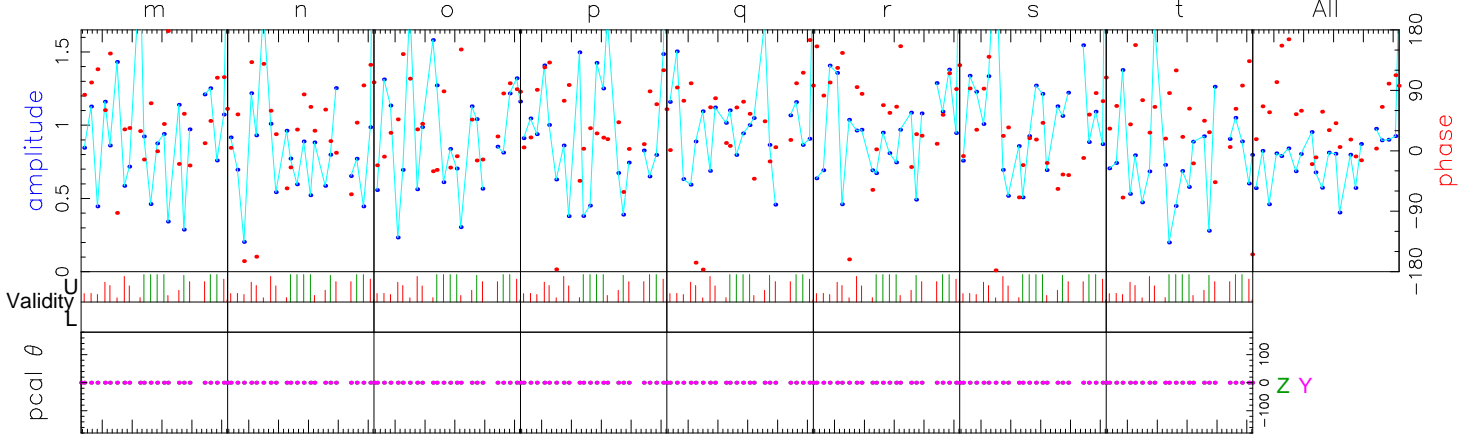
Fringe quality 7

SNR 20.2
Int time 180.037
Amp 0.550
Phase 49.9
PFD 0.0e+00
Delays (us)
SBD 0.010103
MBD -0.004594
Fringe rate (Hz)
0.034029
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512



Exp. f241a
Exper # 1234
Yr:day 2024:109
Start 120017.41
Stop 120500.03
FRT 120230.00
Corr/FF/build
2024:110:093036
2024:110:095647
2023:314:152938
RA & Dec (J2000)
22h02m43.291370s
+42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	42.2	53.6	33.6	53.8	63.3	71.7	29.0	50.3	Phase	49.9
	0.6	0.4	0.5	0.6	0.6	0.7	0.6	0.5	Ampl.	0.6
	8196.0	8195.5	8195.5	8196.3	8196.0	8195.5	8195.7	8194.7	Sbd box	8195.6
U/L	388/0	388/0	388/0	388/0	388/0	388/0	388/0	388/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

Group delay (usec) (SBD)	-2.64655272446E+03	Apriori delay (usec)	-2.64656375552E+03	Resid mbdelay (usec)	-4.59394E-03	+/-	5.4E-05
Sband delay (usec)	-2.64655365277E+03	Apriori clock (usec)	1.1077806E+02	Resid sbdelay (usec)	1.01027E-02	+/-	4.3E-04
Phase delay (usec)	-2.64656375391E+03	Apriori clockrate (us/s)	9.3620001E-07	Resid phdelay (usec)	1.60897E-06	+/-	1.8E-07
Delay rate (us/s)	1.39276657073E-01	Apriori rate (us/s)	1.39276262032E-01	Resid rate (us/s)	3.95041E-07	+/-	1.6E-09
Total phase (deg)	-274.2	Apriori accel (us/s/s)	3.12782912580E-05	Resid phase (deg)	49.9	+/-	5.7

ph/seg (deg)	47.2	RMS	11.4	Theor.	15.5	Amplitude	0.550 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	50.7		19.9	Search (2048X32)	13.8	Interp.	0.000	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000 32.000	
ph/frq (deg)	15.5		8.0	Inc. seg. avg.	13.8	Inc. frq. avg.	0.757	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	13.8		14.0	Inc. frq. avg.	13.8	Inc. frq. avg.	0.554	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
								Data rate(Mb/s):	2048	nlags: 8192 t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 287.5 el 40.2 pa 39.8 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) -1037.635 3681.388 simultaneous interpolator
Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001/ZY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001/ZY.W.17.37F3IW

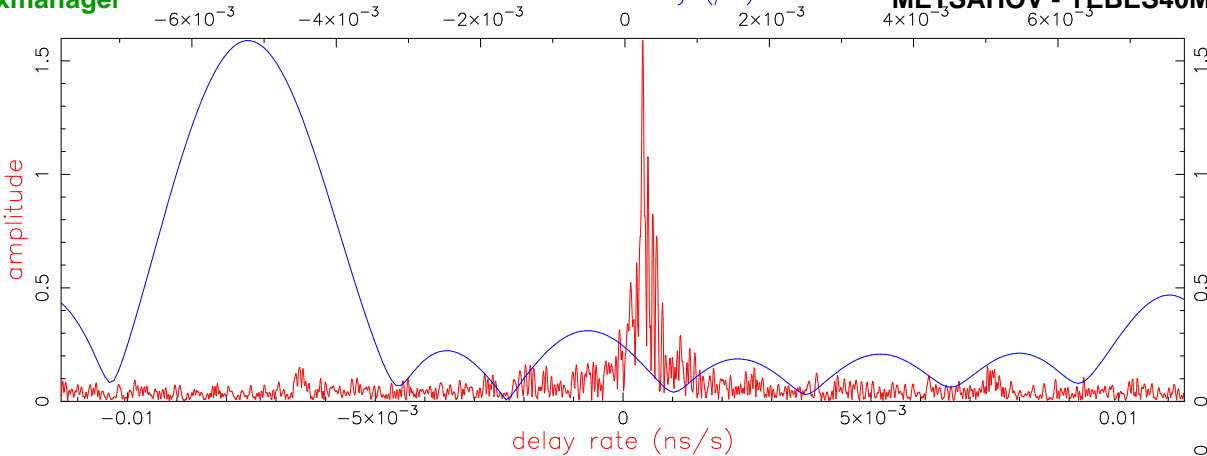
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, ZY

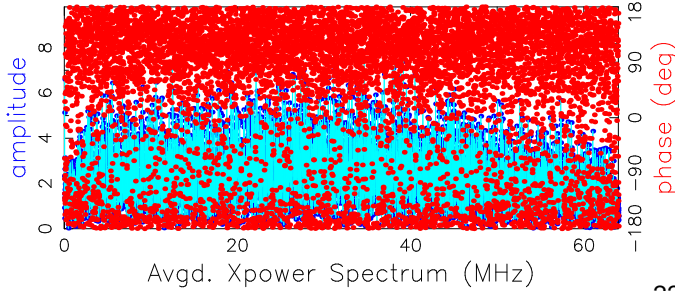
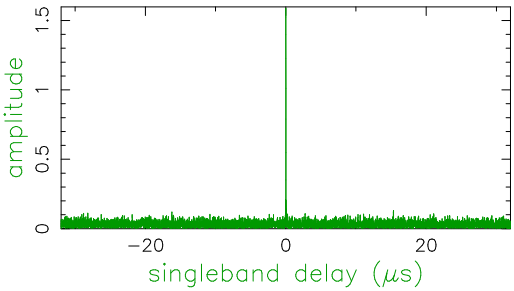
METSAHOV - YEBES40M, fgroup W, pol LL

multiband delay (μ s)



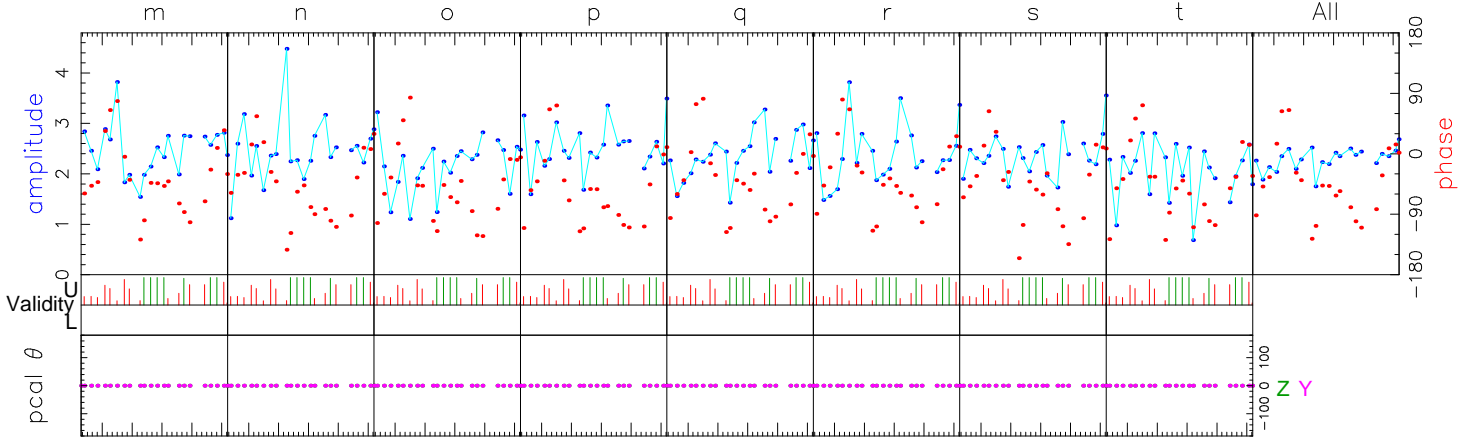
Fringe quality 5

SNR 58.6
 Int time 180.037
 Amp 1.599
 Phase -46.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.010723
 MBD -0.005246
 Fringe rate (Hz)
 0.033925
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:104102
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-35.2	-51.2	-58.4	-58.9	-40.9	-37.2	-48.8	-41.0	Phase	-46.4
	1.7	1.6	1.6	1.7	1.7	1.6	1.6	1.5	Ampl.	1.6
	8195.6	8195.6	8195.6	8195.9	8196.2	8195.5	8196.0	8194.8	Sbd box	8195.7
U/L	388/0	388/0	388/0	388/0	388/0	388/0	388/0	388/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids	
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	

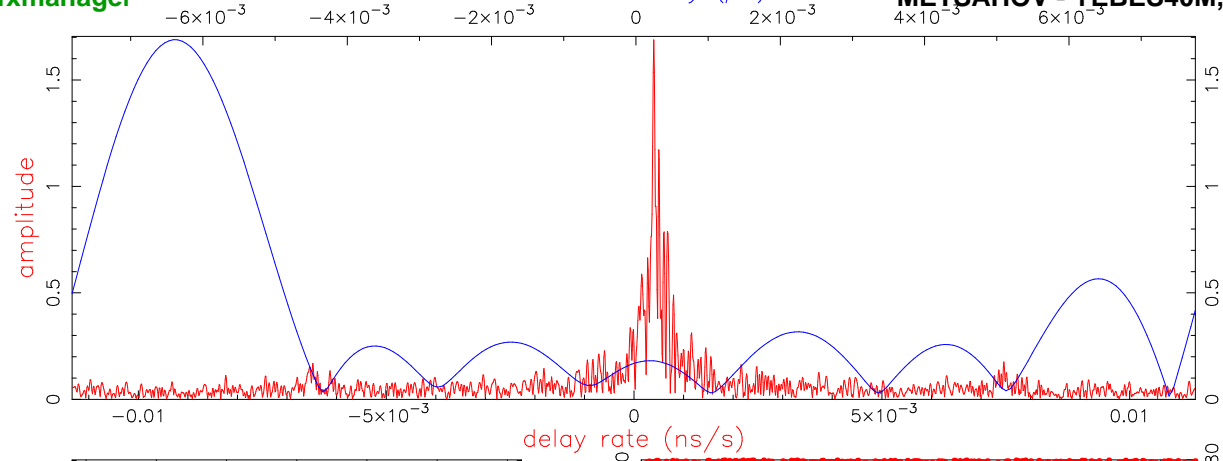
Group delay (usec) (SBD)	-2.64655337677E+03	Apriori delay (usec)	-2.64656375552E+03	Resid mbdelay (usec)	-5.24626E-03	+/-	1.9E-05
Sband delay (usec)	-2.64655303277E+03	Apriori clock (usec)	1.1077806E+02	Resid sbdelay (usec)	1.07227E-02	+/-	1.5E-04
Phase delay (usec)	-2.64656375702E+03	Apriori clockrate (us/s)	9.3620001E-07	Resid phdelay (usec)	-1.49775E-06	+/-	6.3E-08
Delay rate (us/s)	1.39276655868E-01	Apriori rate (us/s)	1.39276262032E-01	Resid rate (us/s)	3.93835E-07	+/-	5.5E-10
Total phase (deg)	-10.5	Apriori accel (us/s/s)	3.12782912580E-05	Resid phase (deg)	-46.4	+/-	2.0

ph/seg (deg)	47.3	RMS	3.9	Theor.	1.599 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	43.3	Search (2048X32)	1.547	Amplitude		Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000 32.000	
ph/frq (deg)	10.0	Interp.	0.000	Search		Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	4.8	Inc. seg. avg.	2.254	Inc. seg. avg.		Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
		Inc. frq. avg.	1.607	Inc. frq. avg.		Data rate(Mb/s):	2048	nlags: 8192 t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 287.5 el 40.2 pa 39.8 Y: az 290.8 el 50.8 pa 74.0 u, v (fr/asec) -1037.635 3681.388 simultaneous interpolator

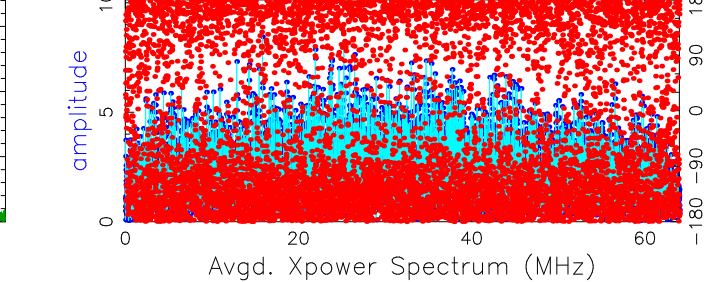
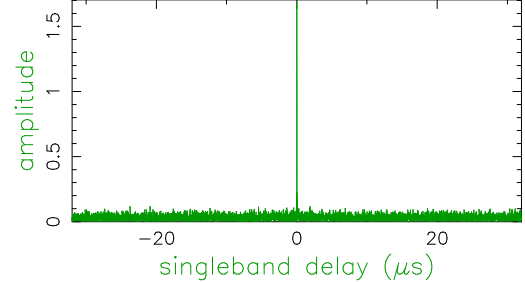
Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//ZY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//ZY.W.49.37F3IW

multiband delay (μ s)



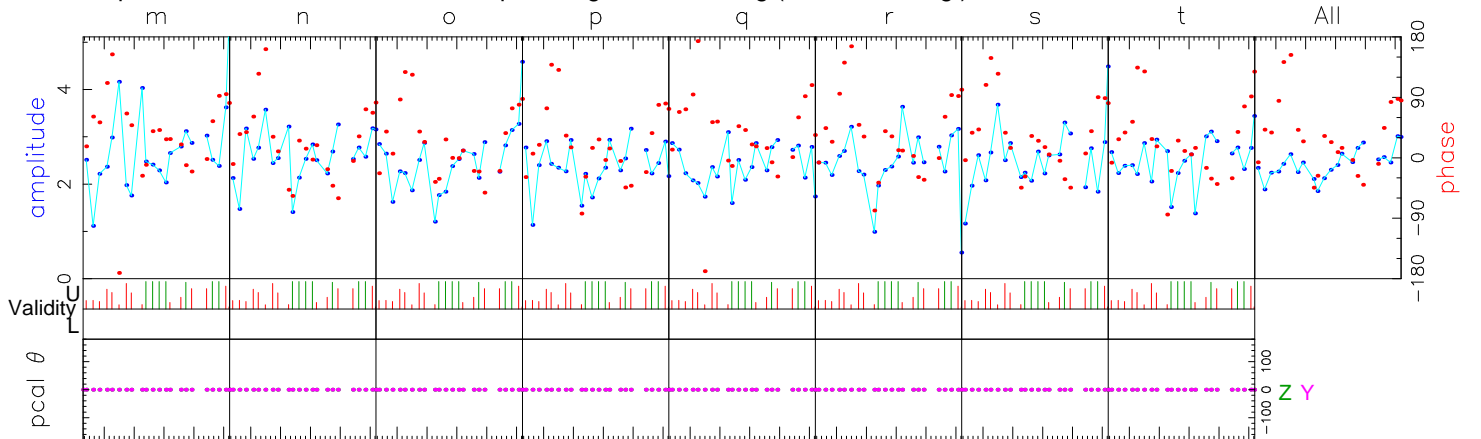
Fringe quality 5

SNR 62.5
 Int time 180.037
 Amp 1.705
 Phase 27.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.009112
 MBD -0.006352
 Fringe rate (Hz)
 0.033957
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512



Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:104222
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	41.4	17.9	22.8	17.7	40.3	34.8	25.9	18.1	Phase	27.3
	1.7	1.8	1.8	1.6	1.7	1.7	1.7	1.8	Ampl.	1.7
	8195.0	8194.6	8195.6	8195.5	8195.5	8195.4	8195.5	8194.9	Sbd box	8195.3
U/L	388/0	388/0	388/0	388/0	388/0	388/0	388/0	388/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Y	0	0	0	0	0	0	0	0	PC freqs	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks	

Group delay (usec) (SBD)	-2.64655448246E+03	Apriori delay (usec)	-2.64656375552E+03	Resid mbdelay (usec)	-6.35194E-03	+/-	1.7E-05
Sband delay (usec)	-2.64655464402E+03	Apriori clock (usec)	1.1077806E+02	Resid sbdelay (usec)	9.11150E-03	+/-	1.4E-04
Phase delay (usec)	-2.64656375464E+03	Apriori clockrate (us/s)	9.3620001E-07	Resid phdelay (usec)	8.80840E-07	+/-	5.9E-08
Delay rate (us/s)	1.39276656242E-01	Apriori rate (us/s)	1.39276262032E-01	Resid rate (us/s)	3.94210E-07	+/-	5.2E-10
Total phase (deg)	-296.8	Apriori accel (us/s/s)	3.12782912580E-05	Resid phase (deg)	27.3	+/-	1.8

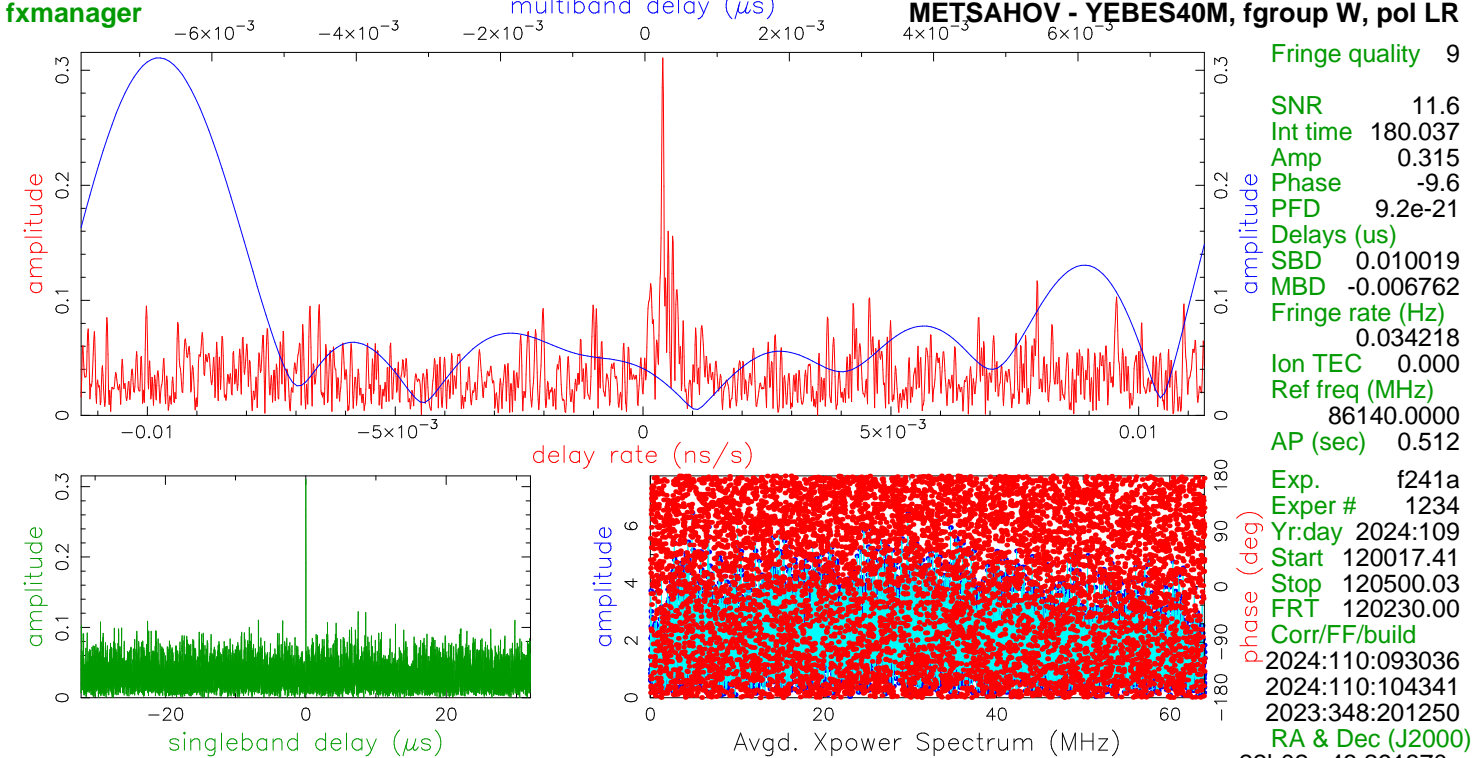
ph/seg (deg) 47.6 3.7 Search (2048X32) 1.651 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 45.7 6.4 Interp. 0.000 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 10.9 2.6 Inc. seg. avg. 2.418 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 2.9 4.5 Inc. frq. avg. 1.711 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Z: az 287.5 el 40.2 pa 39.8 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) -1037.635 3681.388 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//ZY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//ZY.W.50.37F3IW

Mk4/DiFX fourfit 3.24 rev 3753

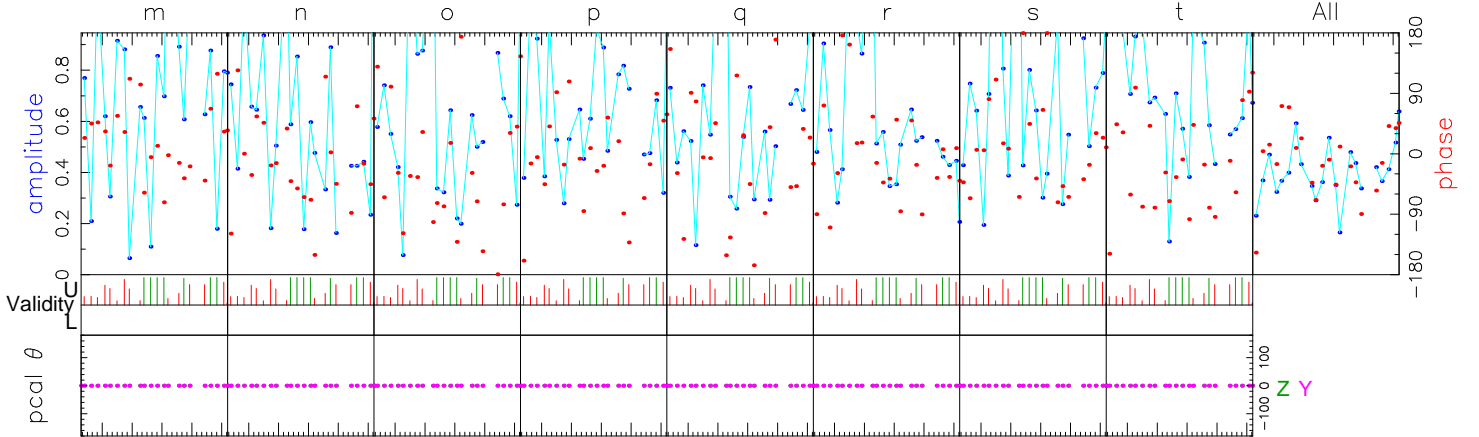
fxmanager

BLLAC.37F3IW, No0001, ZY

METSAHOV - YEBES40M, fgroup W, pol LR



Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
5.0	-21.6	-44.6	-14.6	1.7	-8.1	0.4	-10.9	Phase	-9.6
0.5	0.3	0.2	0.3	0.2	0.4	0.3	0.3	Ampl.	0.3
8195.1	6074.4	13699.8	12152.0	8688.3	8196.0	11592.6	6806.1	Sbd box	8195.6
U/L 388/0	388/0	388/0	388/0	388/0	388/0	388/0	388/0	APs used	
Z 0	0	0	0	0	0	0	0	PC freqs	
Y 0	0	0	0	0	0	0	0	PC freqs	
Z:Y 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Y 0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z 1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Y 1000	1000	1000	1000	1000	1000	1000	1000		
Z 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)	-2.64655489212E+03	Apriori delay (usec)	-2.64656375552E+03	Resid mbdelay (usec)	-6.76160E-03	+/-	9.4E-05
Sband delay (usec)	-2.64655373652E+03	Apriori clock (usec)	1.1077806E+02	Resid sbdelay (usec)	1.00190E-02	+/-	7.4E-04
Phase delay (usec)	-2.64656375583E+03	Apriori clockrate (us/s)	9.3620001E-07	Resid phdelay (usec)	-3.09230E-07	+/-	3.2E-07
Delay rate (us/s)	1.39276659264E-01	Apriori rate (us/s)	1.39276262032E-01	Resid rate (us/s)	3.97232E-07	+/-	2.8E-09
Total phase (deg)	-333.7	Apriori accel (us/s/s)	3.12782912580E-05	Resid phase (deg)	-9.6	+/-	9.9

ph/seg (deg)	45.4	Theor.	19.9	Amplitude	0.315 +/- 0.027	Pcal mode:	MANUAL, MANUAL	PC period (AP's)	5, 5	
amp/seg (%)	41.3		34.8	Search (2048X32)	0.308	Pcal rate:	0.000E+00, 0.000E+00 (us/s)	sb window (us)	-32.000 32.000	
ph/frq (deg)	17.5		14.0	Interp.	0.000	Bits/sample:	2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
amp/frq (%)	23.3		24.4	Inc. seg. avg.	0.375	Data rate(MSamp/s):	128 MBpts 32 Amb 0.016 us	dr window (ns/s)	-0.011 0.011	
				Inc. frq. avg.	0.311	Data rate(Mb/s):	2048	nlags: 8192 t_cohere infinite	ion window (TEC)	0.00 0.00

Z: az 287.5 el 40.2 pa 39.8 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) -1037.635 3681.388 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//ZY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//ZY.W.51.37F3IW

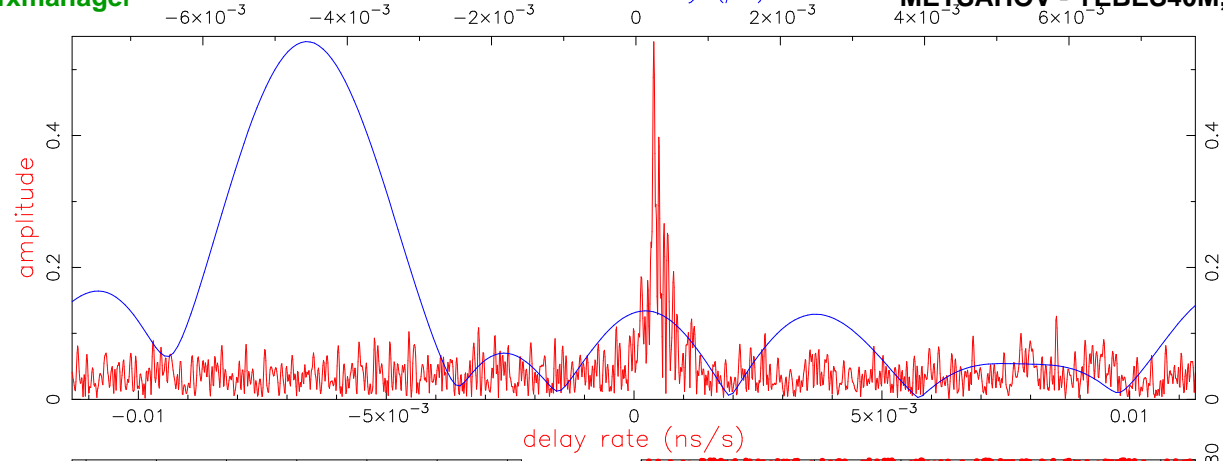
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

BLLAC.37F3IW, No0001, ZY

METSAHOV - YEBES40M, fgroup W, pol RL

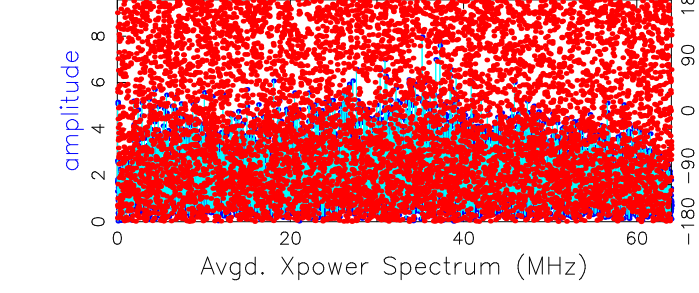
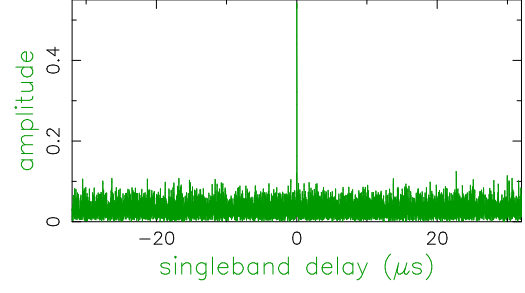
multiband delay (μ s)



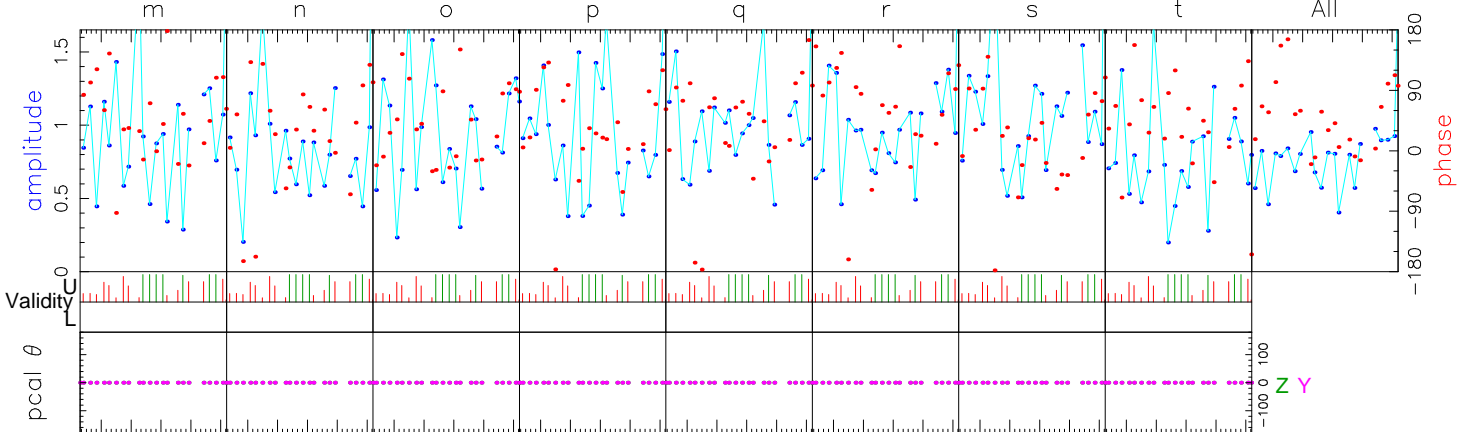
Fringe quality 7

SNR 20.2
 Int time 180.037
 Amp 0.550
 Phase 49.9
 PFD 0.0e+00
 Delays (us)
 SBD 0.010103
 MBD -0.004594
 Fringe rate (Hz) 0.034029
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512

Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:104459
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	388/0	388/0	388/0	388/0	388/0	388/0	388/0	388/0		
Z	0	0	0	0	0	0	0	0		
Y	0	0	0	0	0	0	0	0		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Y	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Y	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD)	-2.64655272446E+03	Apriori delay (usec)	-2.64656375552E+03	Resid mbdelay (usec)	-4.59394E-03	+/-	5.4E-05
Sband delay (usec)	-2.64655365277E+03	Apriori clock (usec)	1.1077806E+02	Resid sbdelay (usec)	1.01027E-02	+/-	4.3E-04
Phase delay (usec)	-2.64656375391E+03	Apriori clockrate (us/s)	9.3620001E-07	Resid phdelay (usec)	1.60897E-06	+/-	1.8E-07
Delay rate (us/s)	1.39276657073E-01	Apriori rate (us/s)	1.39276262032E-01	Resid rate (us/s)	3.95041E-07	+/-	1.6E-09
Total phase (deg)	-274.2	Apriori accel (us/s/s)	3.12782912580E-05	Resid phase (deg)	49.9	+/-	5.7

ph/seg (deg) 47.2 11.4
 amp/seg (%) 50.7 19.9
 ph/frq (deg) 15.5 8.0
 amp/frq (%) 13.8 14.0

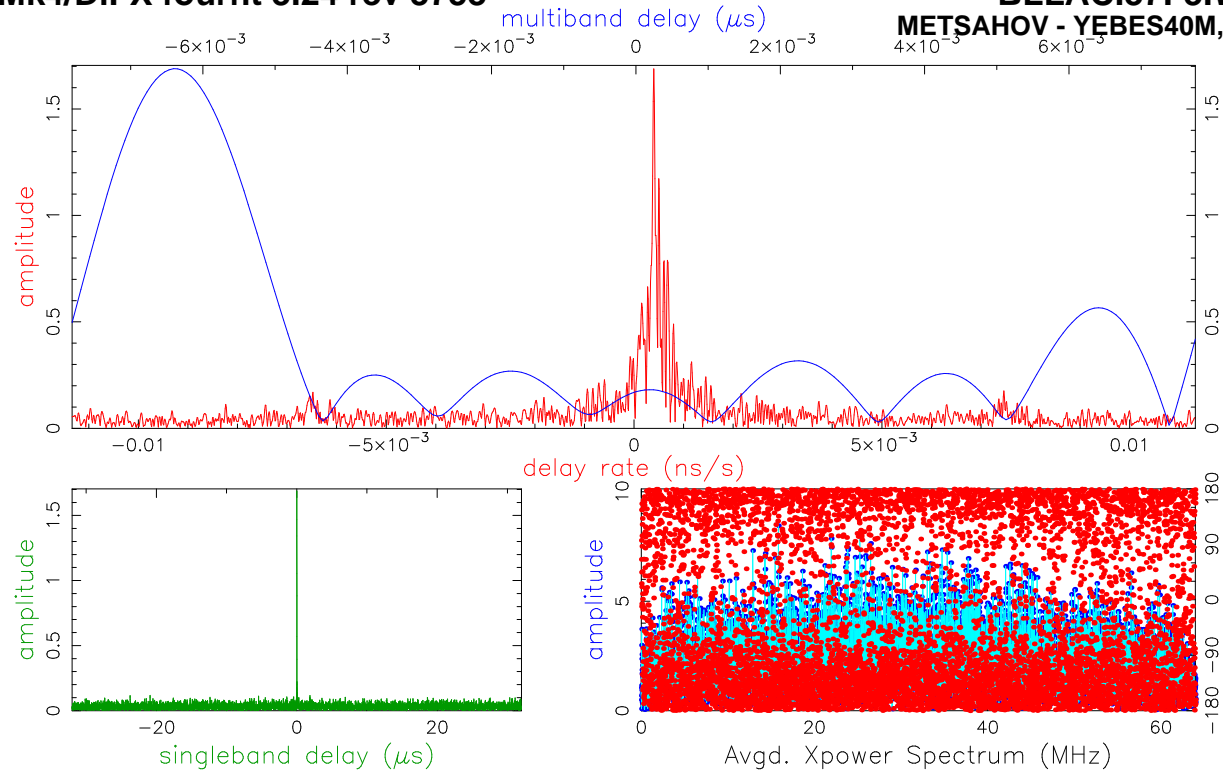
RMS Theor. Amplitude 0.550 +/- 0.027
 Search (2048X32) 0.524
 Interp. 0.000
 Inc. seg. avg. 0.757
 Inc. frq. avg. 0.554

Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 Pcal rate: 0.000E+00, 0.000E+00 (us/s)
 Bits/sample: 2x2 SampCntNorm: enabled
 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us
 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite

sb window (us) -32.000 32.000
 mb window (us) -0.008 0.008
 dr window (ns/s) -0.011 0.011
 ion window (TEC) 0.00 0.00

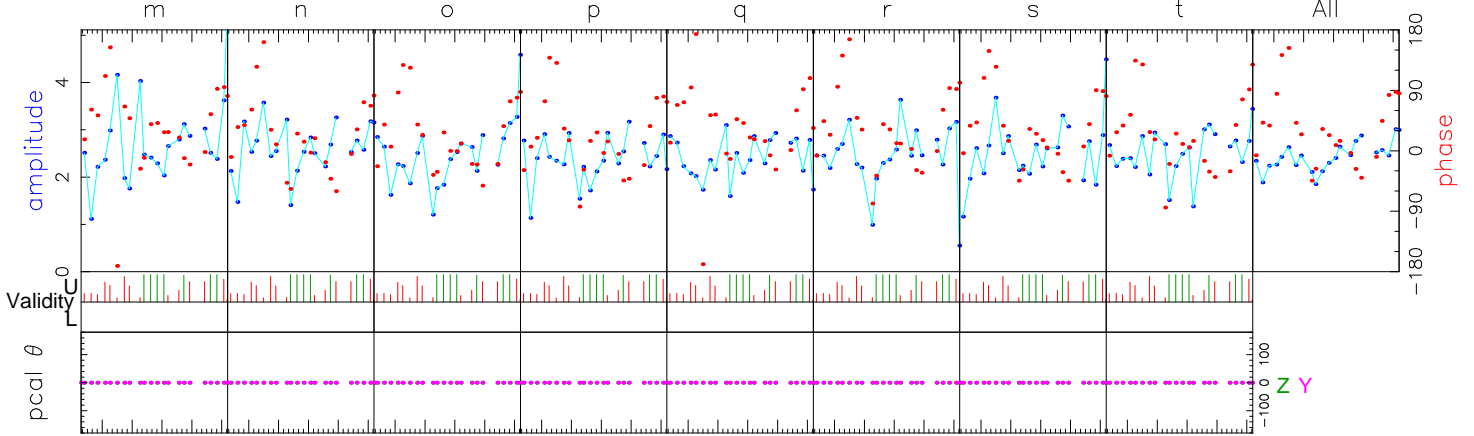
Z: az 287.5 el 40.2 pa 39.8 Y: az 290.8 el 50.8 pa 74.0 u,v (fr/asec) -1037.635 3681.388 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//ZY..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//ZY.W.52.37F3IW



Fringe quality 5
 SNR 62.5
 Int time 180.037
 Amp 1.705
 Phase 27.3
 PFD 0.0e+00
 Delays (us)
 SBD 0.009112
 MBD -0.006352
 Fringe rate (Hz) 0.033957
 Ion TEC 0.000
 Ref freq (MHz) 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120017.41
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:095346
 2023:314:152938
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 25 APs / seg (12.80 sec / seg.), time ticks 10 sec



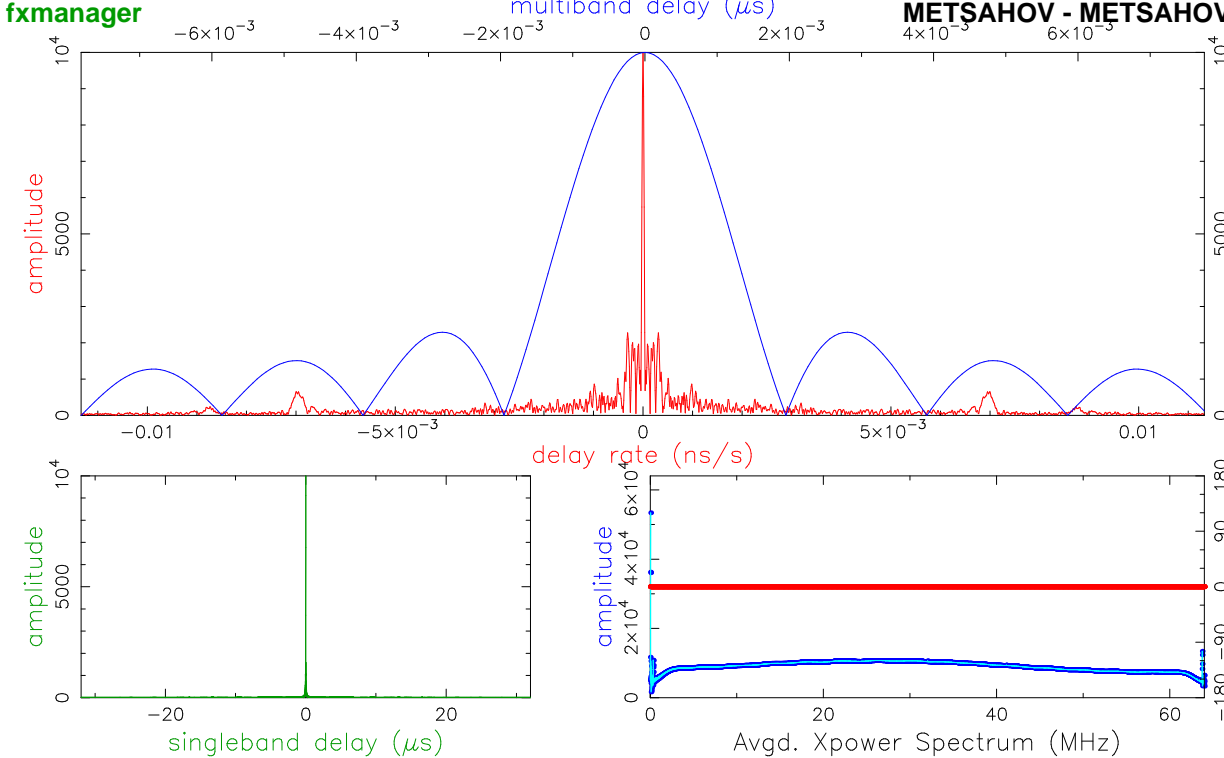
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All	
	41.4	17.9	22.8	17.7	40.3	34.8	25.9	18.1	Phase	27.3	
	1.7	1.8	1.8	1.6	1.7	1.7	1.7	1.8	Ampl.	1.7	
	8195.0	8194.6	8195.6	8195.5	8195.5	8195.4	8195.5	8194.9	Sbd box	8195.3	
U/L	388/0	388/0	388/0	388/0	388/0	388/0	388/0	388/0	APs used		
Z	0	0	0	0	0	0	0	0	PC freqs		
Y	0	0	0	0	0	0	0	0	PC freqs		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase		
Z:Y	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC		
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp		
Y	1000	1000	1000	1000	1000	1000	1000	1000			
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids		
Y	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Tracks		
									Tracks		
Group delay (usec) (SBD)	-2.64655448246E+03		Apriori delay (usec)		-2.64656375552E+03		Resid mbdelay (usec)		-6.35194E-03	+/- 1.7E-05	
Sband delay (usec)	-2.64655464402E+03		Apriori clock (usec)		1.1077806E+02		Resid sbdelay (usec)		9.11150E-03	+/- 1.4E-04	
Phase delay (usec)	-2.64656375464E+03		Apriori clockrate (us/s)		9.3620001E-07		Resid phdelay (usec)		8.80840E-07	+/- 5.9E-08	
Delay rate (us/s)	1.39276656242E-01		Apriori rate (us/s)		1.39276262032E-01		Resid rate (us/s)		3.94210E-07	+/- 5.2E-10	
Total phase (deg)			Apriori accel (us/s/s)		3.12782912580E-05		Resid phase (deg)		27.3	+/- 1.8	
	RMS	Theor.	Amplitude	1.705 +/- 0.027		Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	47.6	3.7	Search (2048X32)	1.651		Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-32.000 32.000	
amp/seg (%)	45.7	6.4	Interp.	0.000		Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	10.9	2.6	Inc. seg. avg.	2.418		Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011 0.011	
amp/frq (%)	2.9	4.5	Inc. frq. avg.	1.711		Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite		ion window (TEC)	0.00 0.00
Z: az 287.5 el 40.2 pa 39.8	Y: az 290.8 el 50.8 pa 74.0		u, v (fr/asec)		-1037.635 3681.388				simultaneous interpolator		
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001/ZY..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001/ZY.W.8.37F3IW								

Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

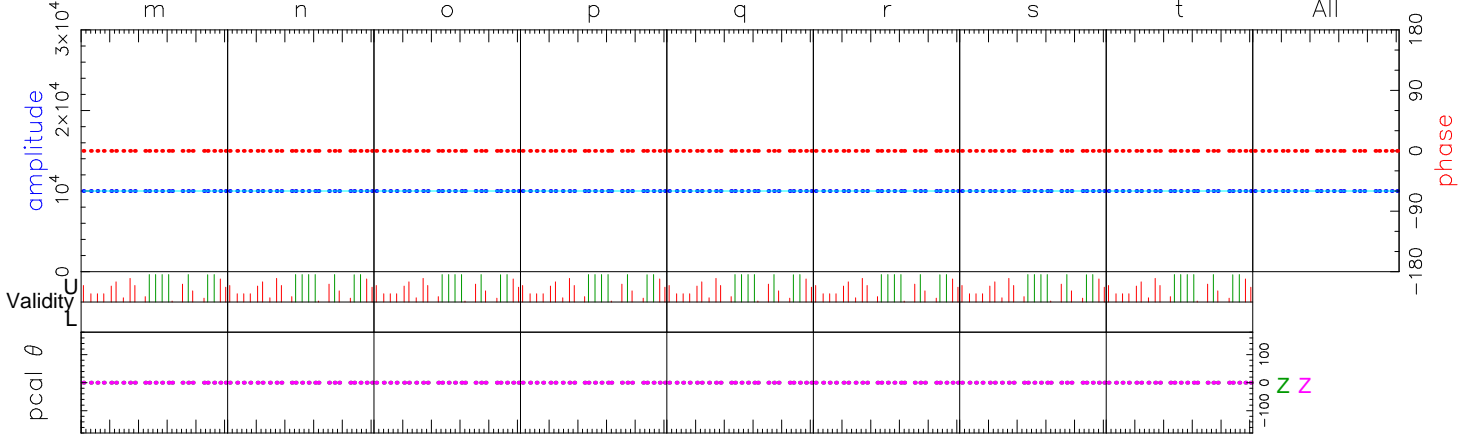
BLLAC.37F3IW, No0001, ZZ

METŜAHOV - MET̂SAHOV, fgroup W, pol LL



Fringe quality 9
 SNR 376142.0
 Int time 189.194
 Amp 10000.006
 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. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:101936
 2023:348:201250
 RA & Dec (J2000) 22h02m43.291370s +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	8193.0	8193.0
Z	0	0	0	0	0	0	0	0	0	0
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0
Z	1000	1000	1000	1000	1000	1000	1000	1000	10000.0	10000.0
Z	1000	1000	1000	1000	1000	1000	1000	1000	8193.0	8193.0
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL		

Group delay (usec) (SBD) 0.000000000000E+00 Apriori delay (usec) 0.000000000000E+00 Resid mbdelay (usec) 0.000000E+00 +/- 2.9E-09
 Sband delay (usec) 0.000000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.000000E+00 +/- 2.3E-08
 Phase delay (usec) 0.000000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.000000E+00 +/- 9.8E-12
 Delay rate (us/s) 0.000000000000E+00 Apriori rate (us/s) 0.000000000000E+00 Resid rate (us/s) 0.000000E+00 +/- 8.0E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.000000000000E+00 Resid phase (deg) 0.0 +/- 0.0

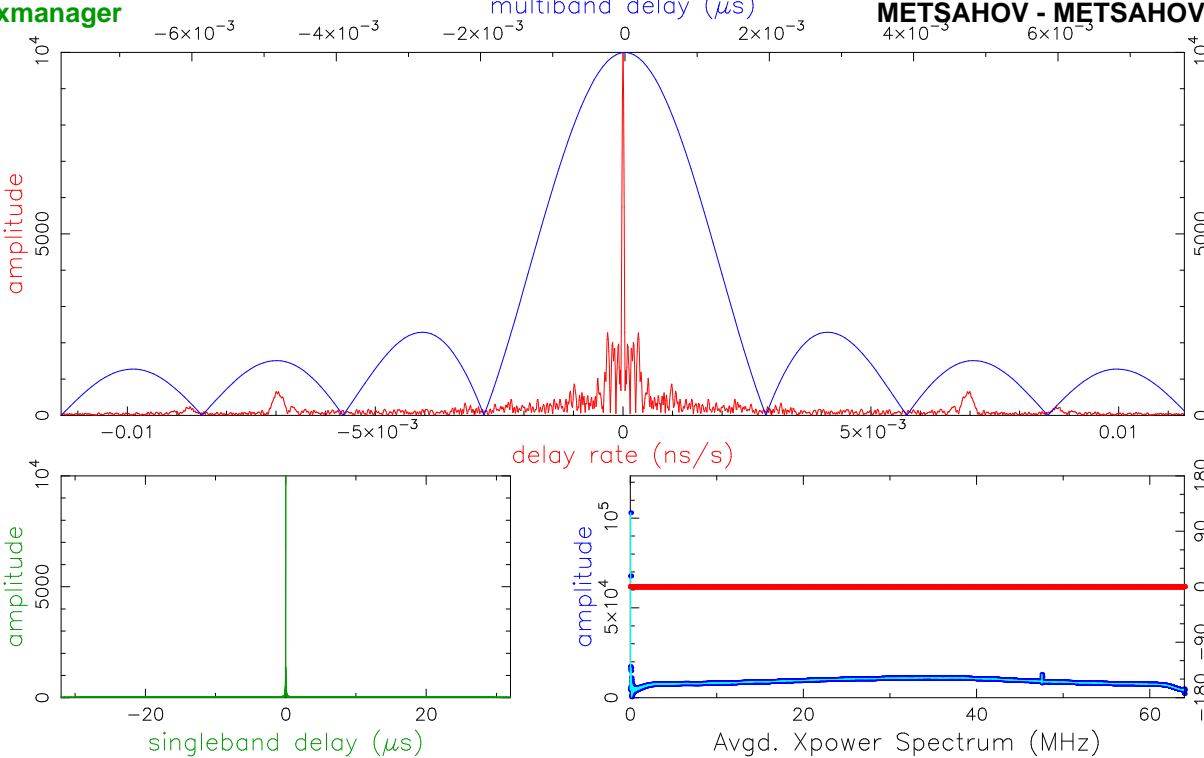
RMS Theor. Amplitude 10000.006 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.0 0.0 Search (2048X32) 10000.006 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 amp/seg (%) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 0.0 0.0 Inc. frq. avg. 10000.006 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 Z: az 287.5 el 40.2 pa 39.8 Z: az 287.5 el 40.2 pa 39.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//ZZ..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//ZZ.W.33.37F3IW

Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

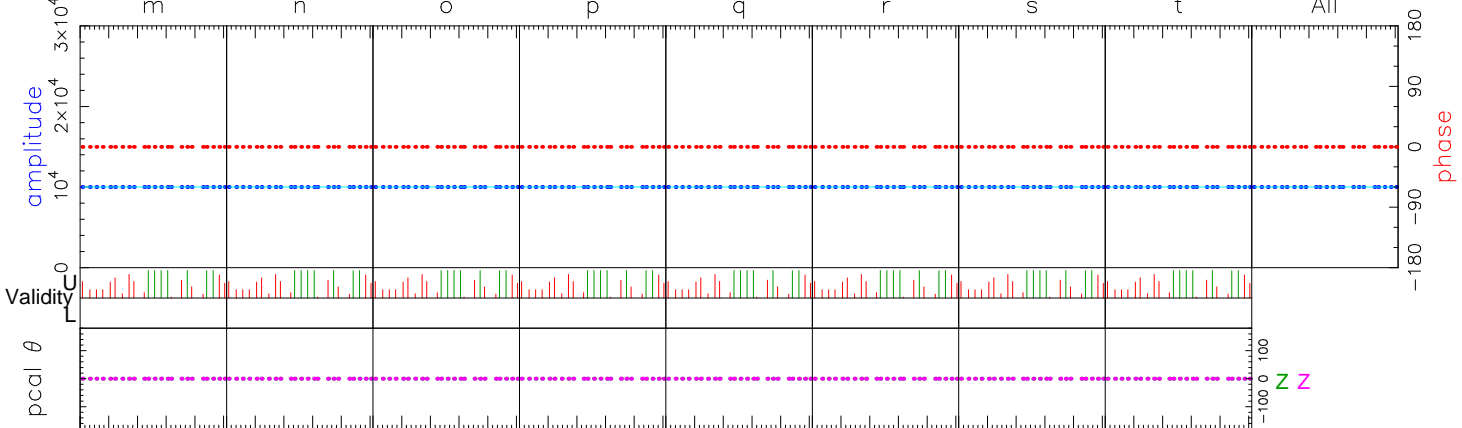
BLLAC.37F3IW, No0001, ZZ

METŜAHOV - MET̂SAHOV, fgroup W, pol RR



Fringe quality 9
 SNR 376142.0
 Int time 189.194
 Amp 10000.006
 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. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:102049
 2023:348:201250
 RA & Dec (J2000) 22h02m43.291370s +42°16'39.979897"

Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0		
Z	0	0	0	0	0	0	0	0		
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0		
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR		

Group delay (usec) (SBD) 0.0000000000E+00 Apriori delay (usec) 0.0000000000E+00 Resid mbdelay (usec) 0.00000E+00 +/- 2.9E-09
 Sband delay (usec) 0.0000000000E+00 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) 0.00000E+00 +/- 2.3E-08
 Phase delay (usec) 0.0000000000E+00 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) 0.00000E+00 +/- 9.8E-12
 Delay rate (us/s) 0.0000000000E+00 Apriori rate (us/s) 0.0000000000E+00 Resid rate (us/s) 0.00000E+00 +/- 8.0E-14
 Total phase (deg) 0.0 Apriori accel (us/s/s) 0.0000000000E+00 Resid phase (deg) 0.0 +/- 0.0

ph/seg (deg) 0.0 0.0 RMS Theor. Amplitude 10000.006 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 amp/seg (%) 0.0 0.0 Search (2048X32) 10000.006 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 ph/frq (deg) 0.0 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 amp/frq (%) 0.0 0.0 Inc. seg. avg. 10000.000 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 Z: az 287.5 el 40.2 pa 39.8 Z: az 287.5 el 40.2 pa 39.8 u,v (fr/asec) 0.000 0.000 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//ZZ..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//ZZ.W.34.37F3IW simultaneous interpolator

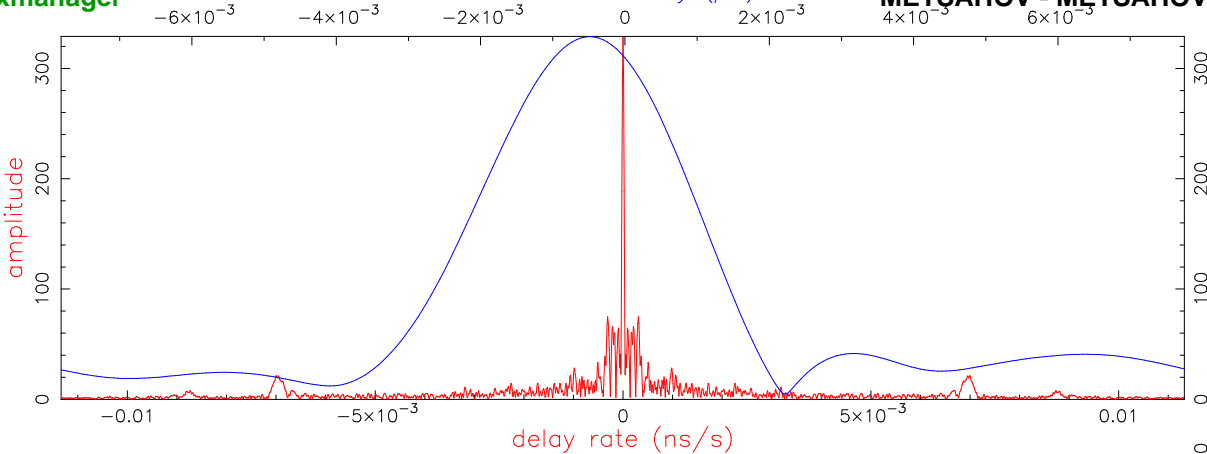
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

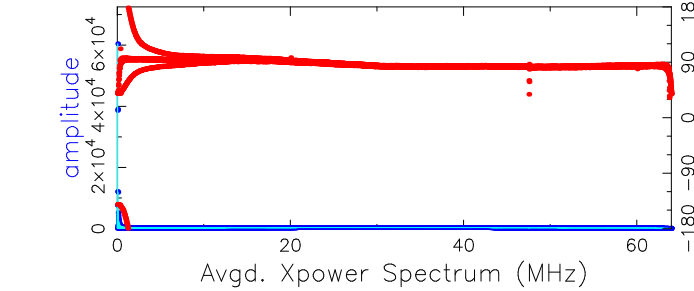
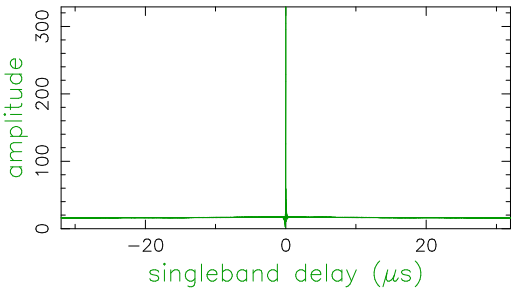
BLLAC.37F3IW, No0001, ZZ

METSAHOV - METSAHOV, fgroup W, pol LR

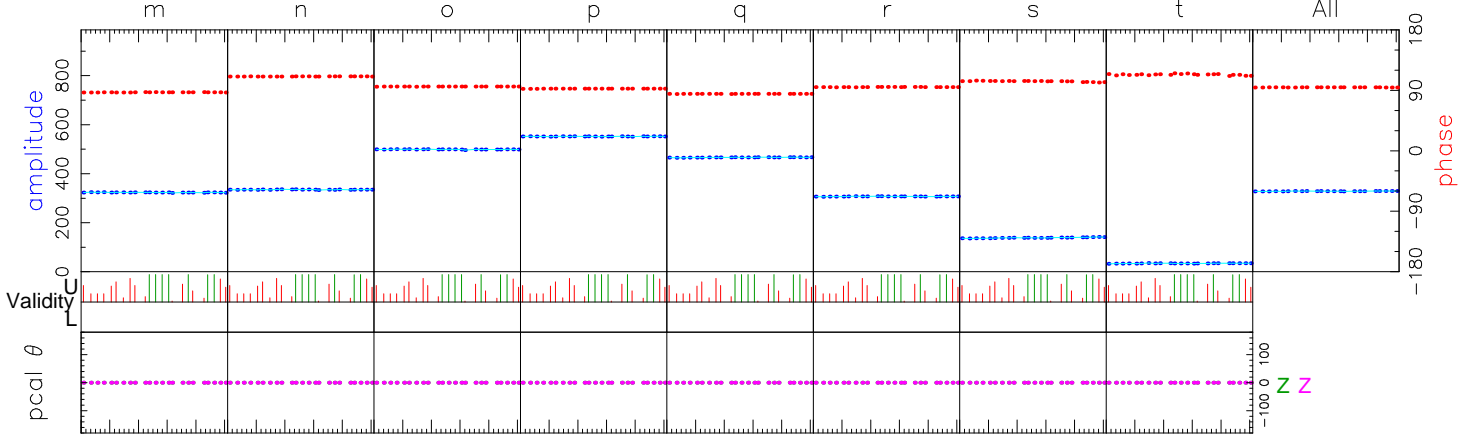
multiband delay (μ s)



Fringe quality 6
 Error code G
 SNR 12375.7
 Int time 189.194
 Amp 329.018
 Phase 94.4
 PFD 0.0e+00
 Delays (us)
 SBD 0.000352
 MBD -0.000476
 Fringe rate (Hz)
 -0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:102203
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	87.0	110.6	95.5	92.4	84.7	94.8	103.3	113.6	Phase	94.4
	323.5	335.0	499.1	552.1	466.6	307.3	138.9	34.2	Ampl.	332.1
	8192.9	8193.1	8192.8	8192.9	8192.9	8193.4	8194.4	8198.2	Sbd box	8193.1
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	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)	-4.76468750000E-04		Apriori delay (usec)		0.00000000000E+00		Resid mbdelay (usec)		-4.76469E-04	+/- 8.8E-08
Sband delay (usec)	3.52250000000E-04		Apriori clock (usec)		0.0000000E+00		Resid sbdelay (usec)		3.52250E-04	+/- 7.0E-07
Phase delay (usec)	3.04282318001E-06		Apriori clockrate (us/s)		0.0000000E+00		Resid phdelay (usec)		3.04282E-06	+/- 3.0E-10
Delay rate (us/s)	-4.95990333709E-12		Apriori rate (us/s)		0.00000000000E+00		Resid rate (us/s)		-4.95990E-12	+/- 2.4E-12
Total phase (deg)	94.4		Apriori accel (us/s/s)		0.00000000000E+00		Resid phase (deg)		94.4	+/- 0.0
	RMS	Theor.	Amplitude	329.018 +/- 0.027	Pcal mode: MANUAL, MANUAL		PC period (AP's) 5, 5			
ph/seg (deg)	0.1	0.0	Search (2048X32)	328.787	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)		-32.000	32.000
amp/seg (%)	0.1	0.0	Interp.	0.000	Bits/sample: 2x2		SampCntNorm: enabled		mb window (us)	-0.008 0.008
ph/frq (deg)	12.0	0.0	Inc. seg. avg.	328.777	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)		-0.011	0.011
amp/frq (%)	50.5	0.0	Inc. frq. avg.	332.106	Data rate(Mb/s): 2048		nlags: 8192 t_cohere infinite		ion window (TEC)	0.00 0.00
Z: az 287.5 el 40.2 pa 39.8	Z: az 287.5 el 40.2 pa 39.8		u,v (fr/asec) 0.000 0.000						simultaneous interpolator	
Control file: cf_1234_gmva	Input file: /Exps/f241a/FRINGE/1234/No0001//ZZ..37F3IW		Output file: /Exps/f241a/FRINGE/1234/No0001//ZZ.W.35.37F3IW							

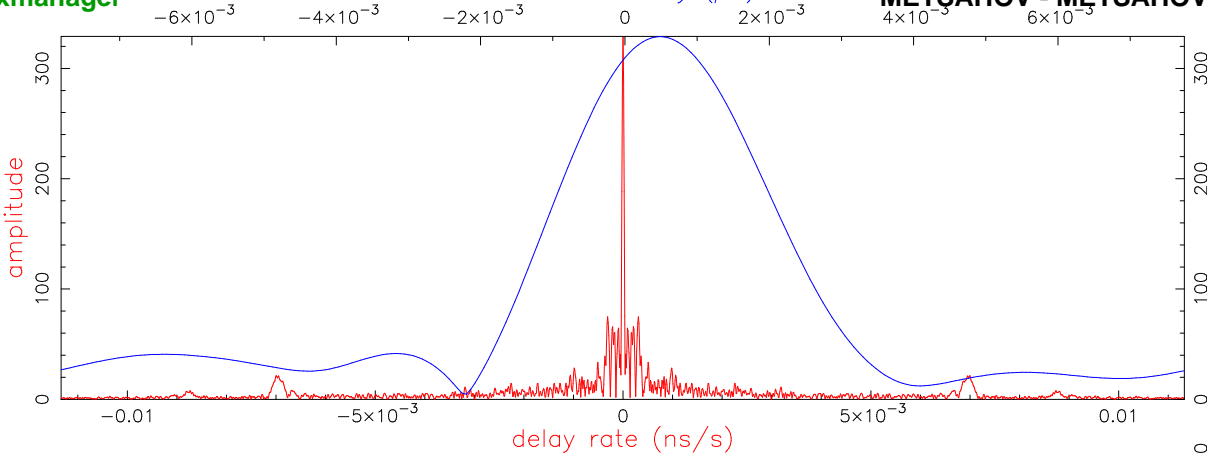
Mk4/DiFX fourfit 3.24 rev 3753

fxmanager

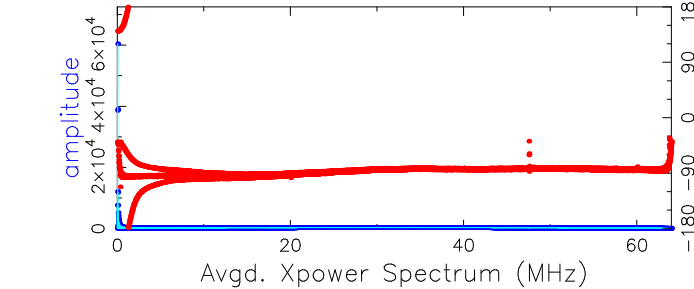
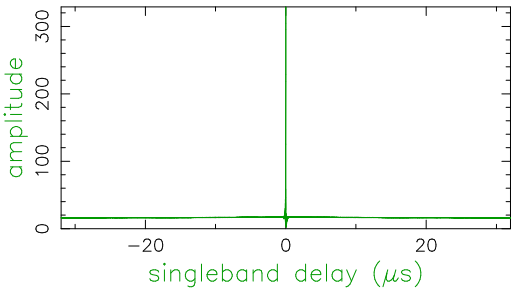
BLLAC.37F3IW, No0001, ZZ

METSAHOV - METSAHOV, fgroup W, pol RL

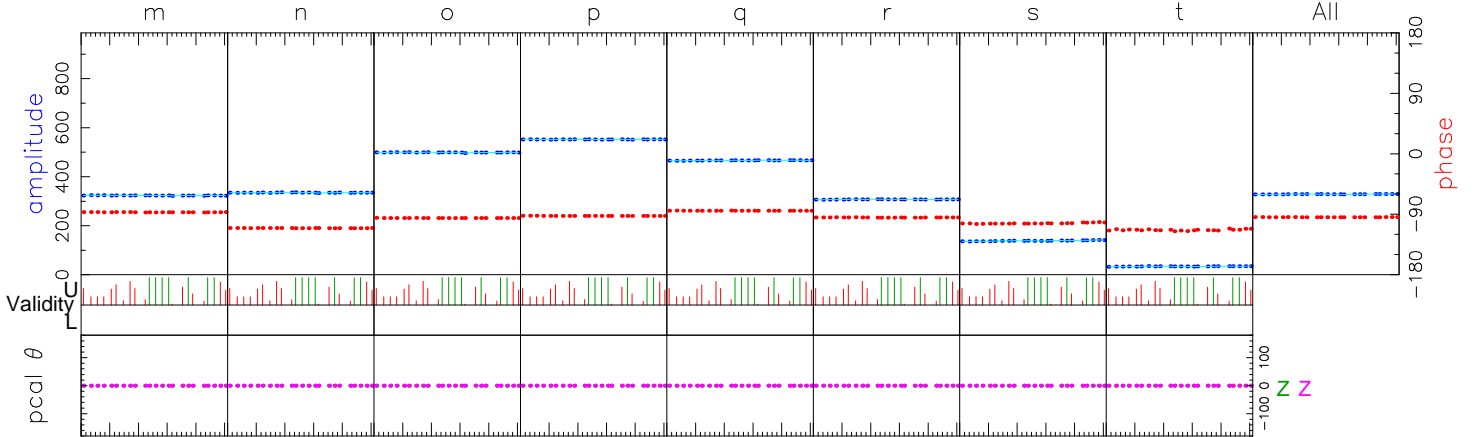
multiband delay (μ s)



Fringe quality 6
 Error code G
 SNR 12375.7
 Int time 189.194
 Amp 329.018
 Phase -94.4
 PFD 0.0e+00
 Delays (us)
 SBD -0.000352
 MBD 0.000476
 Fringe rate (Hz)
 0.000000
 Ion TEC 0.000
 Ref freq (MHz)
 86140.0000
 AP (sec) 0.512
 Exp. f241a
 Exper # 1234
 Yr:day 2024:109
 Start 120000.00
 Stop 120500.03
 FRT 120230.00
 Corr/FF/build
 2024:110:093036
 2024:110:102319
 2023:348:201250
 RA & Dec (J2000)
 22h02m43.291370s
 +42°16'39.979897"



Amp. and Phase vs. time for each freq., 23 segs, 26 APs / seg (13.31 sec / seg.), time ticks 10 sec



	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Freq (MHz)	All
	-87.0	-110.6	-95.5	-92.4	-84.7	-94.8	-103.3	-113.6	Phase	-94.4
	323.5	335.0	499.1	552.1	466.6	307.3	138.9	34.2	Ampl.	332.1
	8193.1	8192.9	8193.2	8193.1	8193.1	8192.6	8191.6	8187.8	Sbd box	8192.9
U/L	413/0	413/0	413/0	413/0	413/0	413/0	413/0	413/0	APs used	
Z	0	0	0	0	0	0	0	0	PC freqs	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
Z:Z	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Mani PC	
Z	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
Z	1000	1000	1000	1000	1000	1000	1000	1000		
Z	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids	
Z	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Tracks	
Z									Tracks	

Group delay (usec) (SBD) 4.76468750000E-04 Apriori delay (usec) 0.00000000000E+00 Resid mbdelay (usec) 4.76469E-04 +/- 8.8E-08
 Sband delay (usec) -3.52250000000E-04 Apriori clock (usec) 0.0000000E+00 Resid sbdelay (usec) -3.52250E-04 +/- 7.0E-07
 Phase delay (usec) -3.04282318001E-06 Apriori clockrate (us/s) 0.0000000E+00 Resid phdelay (usec) -3.04282E-06 +/- 3.0E-10
 Delay rate (us/s) 4.95990333709E-12 Apriori rate (us/s) 0.00000000000E+00 Resid rate (us/s) 4.95990E-12 +/- 2.4E-12
 Total phase (deg) -94.4 Apriori accel (us/s/s) 0.00000000000E+00 Resid phase (deg) -94.4 +/- 0.0

RMS Theor. Amplitude 329.018 +/- 0.027 Pcal mode: MANUAL, MANUAL PC period (AP's) 5, 5
 ph/seg (deg) 0.1 0.0 Search (2048X32) 328.787 Pcal rate: 0.000E+00, 0.000E+00 (us/s) sb window (us) -32.000 32.000
 amp/seg (%) 0.1 0.0 Interp. 0.000 Bits/sample: 2x2 SampCntNorm: enabled mb window (us) -0.008 0.008
 ph/frq (deg) 12.0 0.0 Inc. seg. avg. 328.777 Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us dr window (ns/s) -0.011 0.011
 amp/frq (%) 50.5 0.0 Inc. frq. avg. 332.106 Data rate(Mb/s): 2048 nlags: 8192 t_cohere infinite ion window (TEC) 0.00 0.00
 Z: az 287.5 el 40.2 pa 39.8 Z: az 287.5 el 40.2 pa 39.8 u,v (fr/asec) 0.000 0.000 simultaneous interpolator
 Control file: cf_1234_gmva Input file: /Exps/f241a/FRINGE/1234/No0001//ZZ..37F3IW Output file: /Exps/f241a/FRINGE/1234/No0001//ZZ.W.36.37F3IW