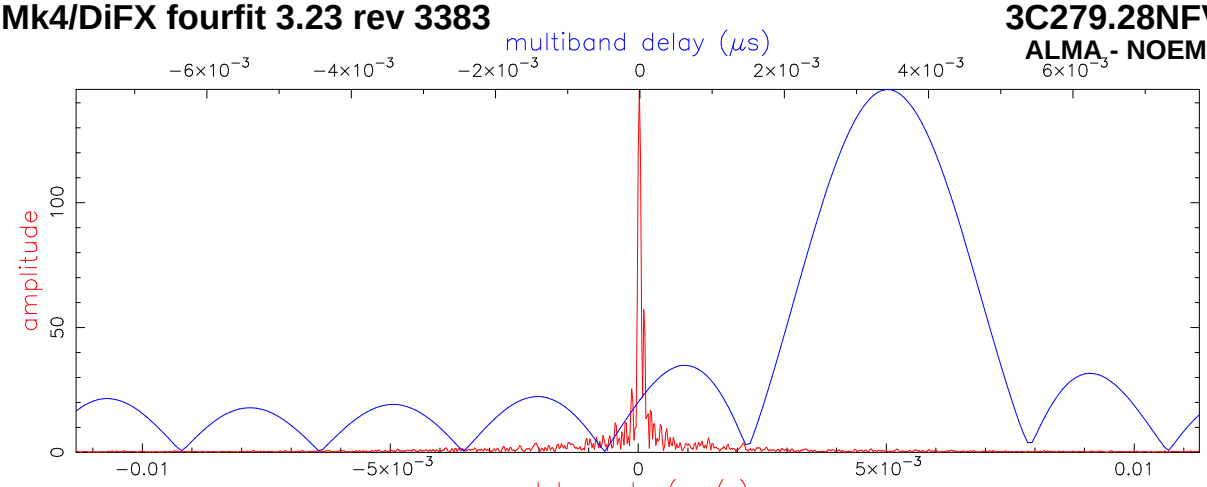
Mk4/DiFX fourfit 3.23 rev 3383

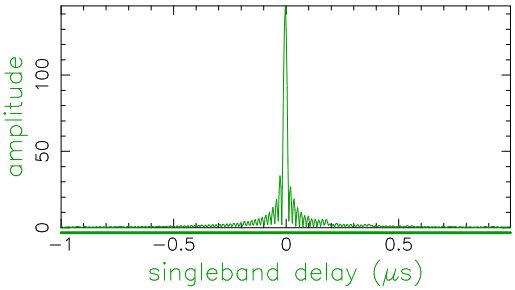
3C279.28NFVJ, No0056, AN

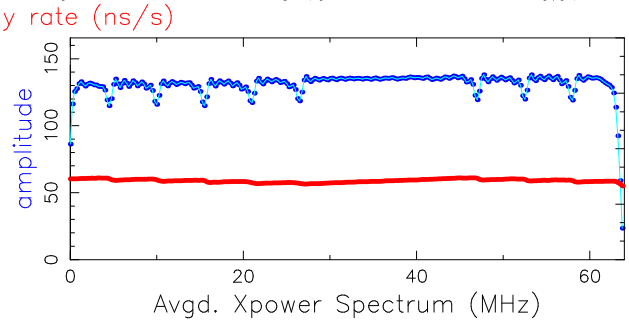
ALMA - NOEMA, fgroup W, pol LL



Fringe quality 8

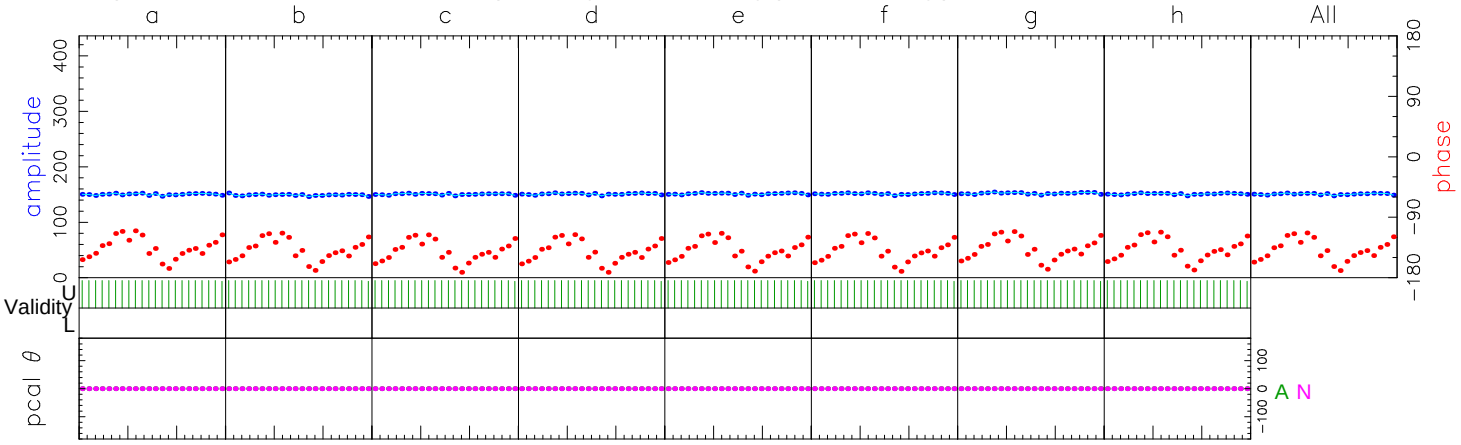
SNR 5333.1
Int time 179.976
Amp 145.371
Phase -138.7
PFD 0.0e+00
Delays (us)
SBD -0.004105
MBD 0.003431
Fringe rate (Hz)
0.001338
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:113
Start 022000.00
Stop 022300.22
FRT 022130.00
Corr/FF/build
2022:164:113250
2022:164:132733
2022:109:102128
RA & Dec (J2000)
12h56m11.166577s
--5°47'21.525129"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	-135.4	-138.8	-141.1	-141.2	-139.2	-139.4	-136.6	-137.7	Phase	-138.7
	145.0	143.8	145.2	145.5	145.8	145.9	146.6	145.5	Ampl.	145.4
	255.8	255.7	256.0	256.0	256.1	256.2	256.0	255.8	Sbd box	255.9
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids Tracks	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids Tracks	

Group delay (usec) (SBD)	1.11666651359E+04	Apriori delay (usec)	1.11666617049E+04	Resid mbdelay (usec)	3.43105E-03	+/-	2.0E-07
Sband delay (usec)	1.11666576001E+04	Apriori clock (usec)	-2.0942419E+03	Resid sbdelay (usec)	-4.10475E-03	+/-	1.6E-06
Phase delay (usec)	1.11666617004E+04	Apriori clockrate (us/s)	-2.0000000E-07	Resid phdelay (usec)	-4.47189E-06	+/-	6.9E-10
Delay rate (us/s)	1.31279298927E+00	Apriori rate (us/s)	1.31279297373E+00	Resid rate (us/s)	1.55358E-08	+/-	6.7E-12
Total phase (deg)	-45.5	Apriori accel (us/s/s)	-5.78463499539E-05	Resid phase (deg)	-138.7	+/-	0.0

	RMS	Theor.	Amplitude	145.371 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	15.6	0.1	Search (1024X32)	142.730	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	3.9	0.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	2.2	0.0	Inc. seg. avg.	150.860	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	0.5	0.1	Inc. frq. avg.	145.415	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

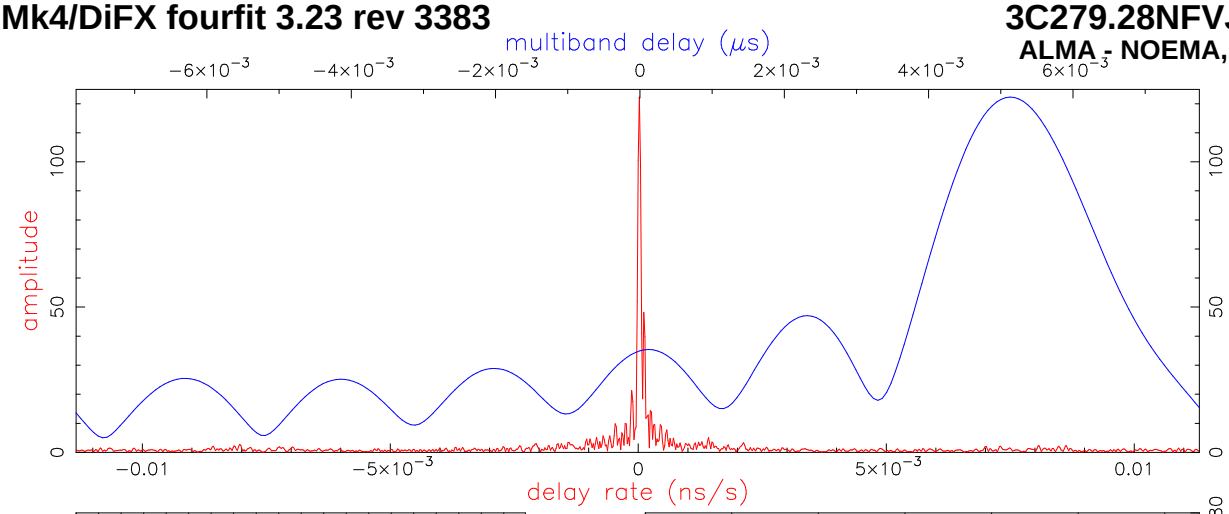
A: az 43.9 el 67.1 pa -140.3 N: az 242.2 el 17.7 pa 39.3 u,v (fr/asec) -7592.779 -9151.140 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0056/AN..28NFVJ Output file: /Exps/mk013b/v1_pc1/5099/No0056/AN.W.150.28NFVJ

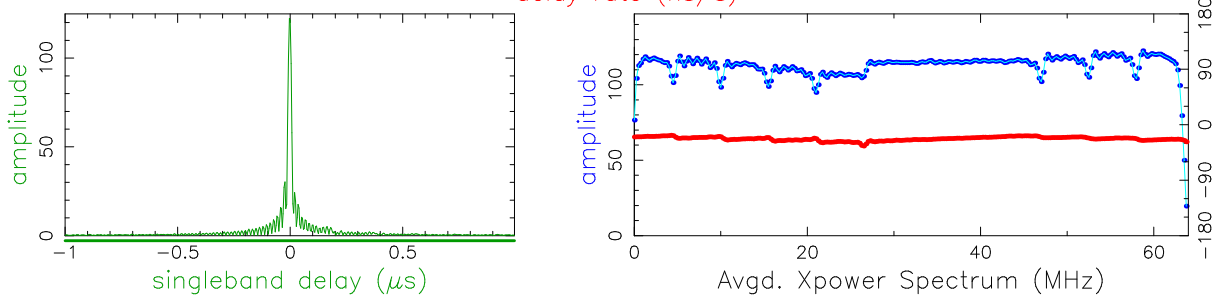
Mk4/DiFX fourfit 3.23 rev 3383

3C279.28NFVJ, No0056, AN

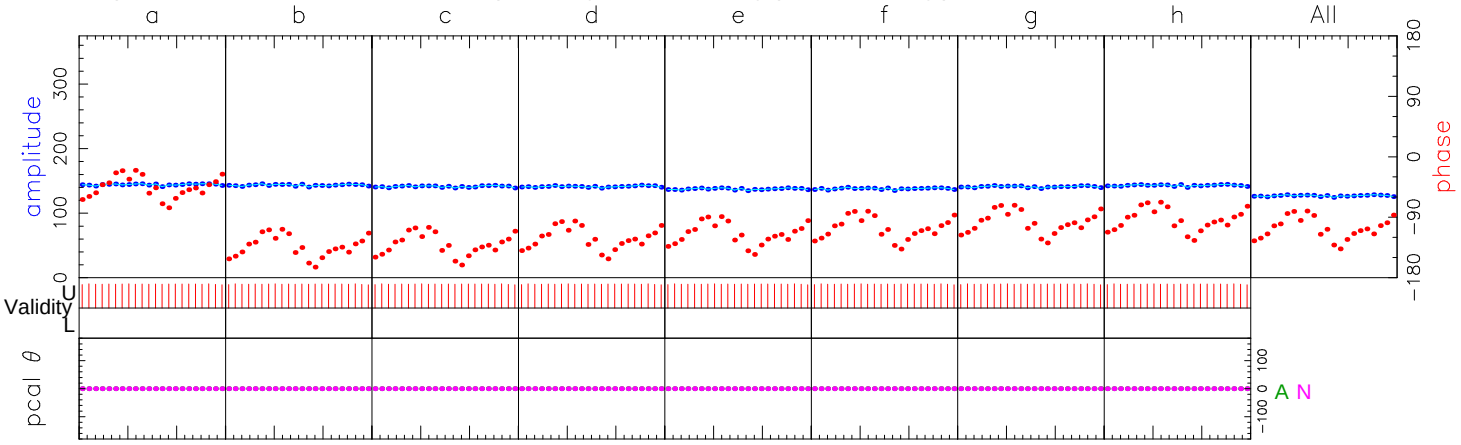
ALMA - NOEMA, fgroup W, pol RR



Fringe quality	6
SNR	4274.3
Int time	156.506
Amp	124.939
Phase	-106.3
PFD	0.0e+00
Delays (us)	
SBD	-0.002117
MBD	0.005141
Fringe rate (Hz)	0.001365
Ion TEC	0.000
Ref freq (MHz)	86140.0000
AP (sec)	0.512
Exp.	mk013b
Exper #	16383
Yr:day	2021:113
Start	022000.00
Stop	022300.22
FRT	022130.00
Corr/FF/build	2022:164:113250
	2022:164:132738
	2022:109:102128
RA & Dec (J2000)	12h56m11.166577s
	--5°47'21.525129"



Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 sec / seg.), time ticks 10 sec



									Freq (MHz)	All
	86012.00	86076.00	86140.00	86204.00	86268.00	86332.00	86396.00	86460.00	Phase	-106.3
	-45.2	-133.4	-130.5	-121.3	-114.6	-106.3	-97.5	-93.5	Ampl.	136.0
	139.0	138.2	136.1	136.2	132.4	132.9	135.8	137.6	Sbd box	256.5
	256.2	256.3	256.4	256.5	256.8	256.7	256.5	256.3		
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids Tracks	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids Tracks	

Group delay (usec) (SBD)	1.11666668460E+04	Apriori delay (usec)	1.11666617049E+04	Resid mbdelay (usec)	5.14108E-03	+/-	2.5E-07
Sband delay (usec)	1.11666595879E+04	Apriori clock (usec)	-2.0942419E+03	Resid sbdelay (usec)	-2.11700E-03	+/-	2.0E-06
Phase delay (usec)	1.11666617015E+04	Apriori clockrate (us/s)	-2.0000000E-07	Resid phdelay (usec)	-3.42782E-06	+/-	8.6E-10
Delay rate (us/s)	1.31279298959E+00	Apriori rate (us/s)	1.31279297373E+00	Resid rate (us/s)	1.58519E-08	+/-	8.3E-12
Total phase (deg)	-13.1	Apriori accel (us/s/s)	-5.78463499539E-05	Resid phase (deg)	-106.3	+/-	0.0

	RMS	Theor.	Amplitude	124.939 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	15.8	0.1	Search (1024X32)	117.685	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	1.9	0.1	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	30.5	0.0	Inc. seg. avg.	127.022	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	9.1	0.1	Inc. frq. avg.	136.032	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

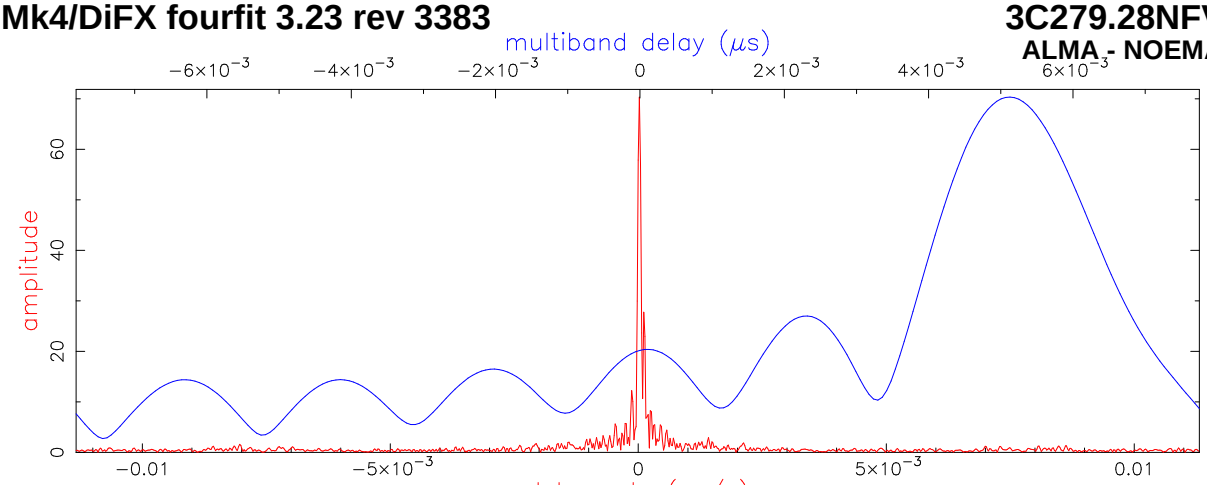
A: az 43.9 el 67.1 pa -140.3 N: az 242.2 el 17.7 pa 39.3 u,v (fr/asec) -7592.779 -9151.140 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0056/AN..28NFVJ Output file: /Exps/mk013b/v1_pc1/5099/No0056/AN.W.196.28NFVJ

Mk4/DiFX fourfit 3.23 rev 3383

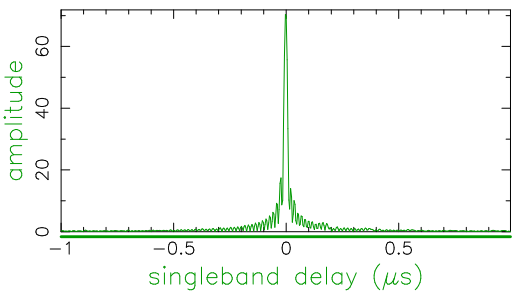
3C279.28NFVJ, No0056, AN

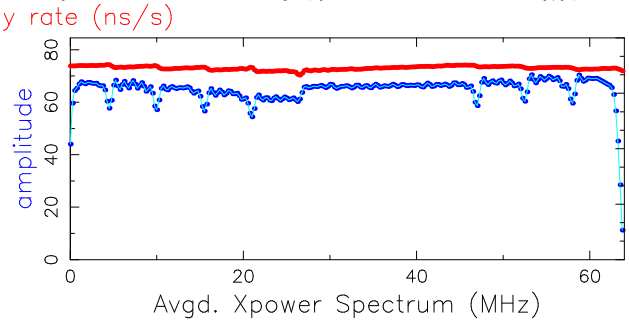
ALMA - NOEMA, fgroup W, pol LR



Fringe quality 6

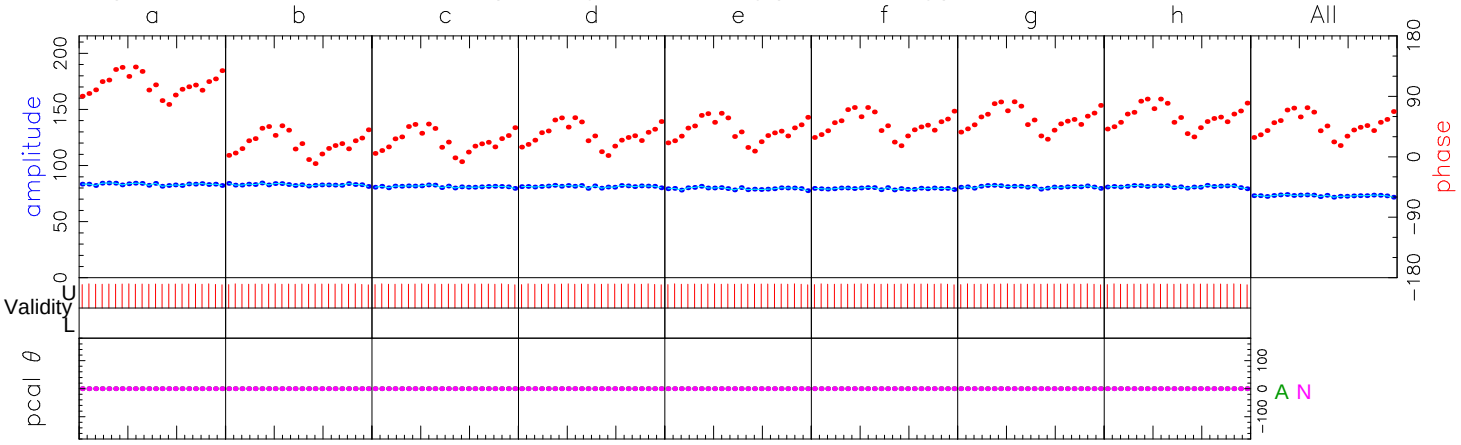
SNR 2458.5
Int time 156.506
Amp 71.865
Phase 47.5
PFD 0.0e+00
Delays (us)
SBD -0.002126
MBD 0.005131
Fringe rate (Hz)
0.001322
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:113
Start 022000.00
Stop 022300.22
FRT 022130.00
Corr/FF/build
2022:164:113250
2022:164:132740
2022:109:102128
RA & Dec (J2000)
12h56m11.166577s
--5°47'21.525129"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	108.2	20.4	23.3	32.7	39.2	47.7	56.5	60.1	Phase	47.5
	80.2	79.9	78.2	78.3	76.5	76.4	77.9	78.2	Ampl.	78.2
	256.2	256.3	256.4	256.5	256.7	256.7	256.5	256.3	Sbd box	256.5
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids Tracks	
N	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids Tracks	

Group delay (usec) (SBD)	1.11666668354E+04	Apriori delay (usec)	1.11666617049E+04	Resid mbdelay (usec)	5.13055E-03	+/-	4.4E-07
Sband delay (usec)	1.11666595794E+04	Apriori clock (usec)	-2.0942419E+03	Resid sbdelay (usec)	-2.12550E-03	+/-	3.5E-06
Phase delay (usec)	1.11666617064E+04	Apriori clockrate (us/s)	-2.0000000E-07	Resid phdelay (usec)	1.53204E-06	+/-	1.5E-09
Delay rate (us/s)	1.31279298908E+00	Apriori rate (us/s)	1.31279297373E+00	Resid rate (us/s)	1.53488E-08	+/-	1.4E-11
Total phase (deg)	140.7	Apriori accel (us/s/s)	-5.78463499539E-05	Resid phase (deg)	47.5	+/-	0.0

	RMS	Theor.	Amplitude	71.865 +/- 0.029	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	15.8	0.1	Search (1024X32)	67.530	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	1.9	0.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	30.3	0.1	Inc. seg. avg.	73.102	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	9.0	0.1	Inc. frq. avg.	78.199	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

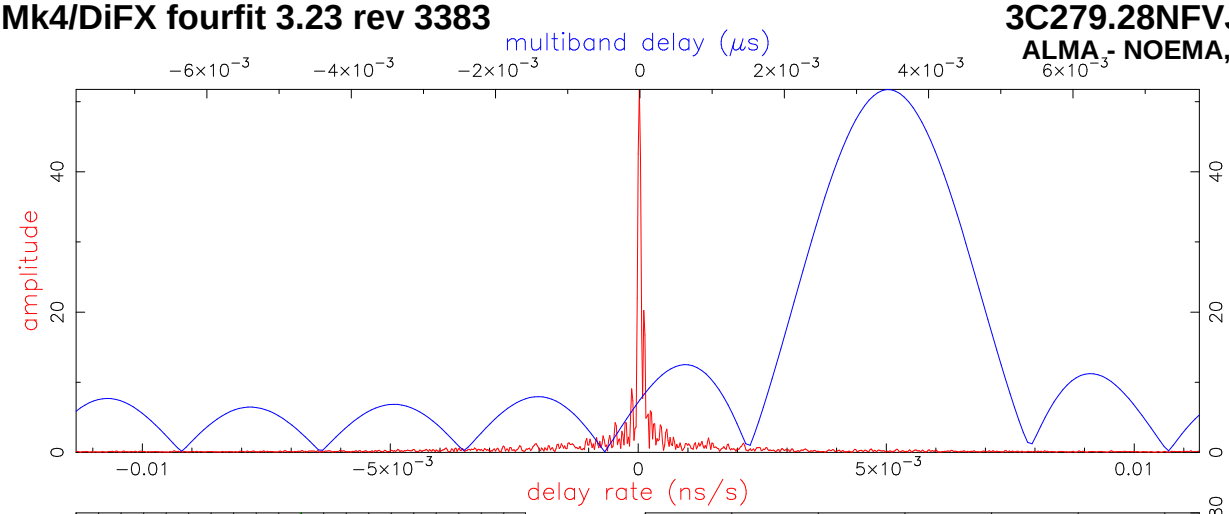
A: az 43.9 el 67.1 pa -140.3 N: az 242.2 el 17.7 pa 39.3 u,v (fr/asec) -7592.779 -9151.140 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0056/AN..28NFVJ Output file: /Exps/mk013b/v1_pc1/5099/No0056/AN.W.214.28NFVJ

Mk4/DiFX fourfit 3.23 rev 3383

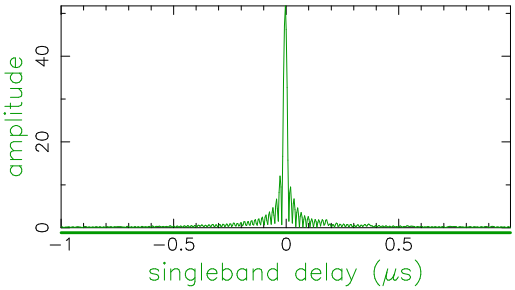
3C279.28NFVJ, No0056, AN

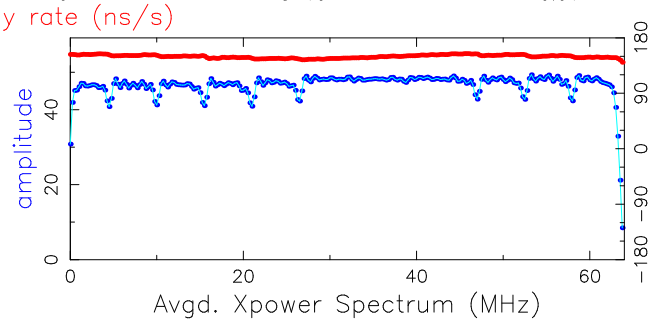
ALMA - NOEMA, fgroup W, pol RL



Fringe quality 8

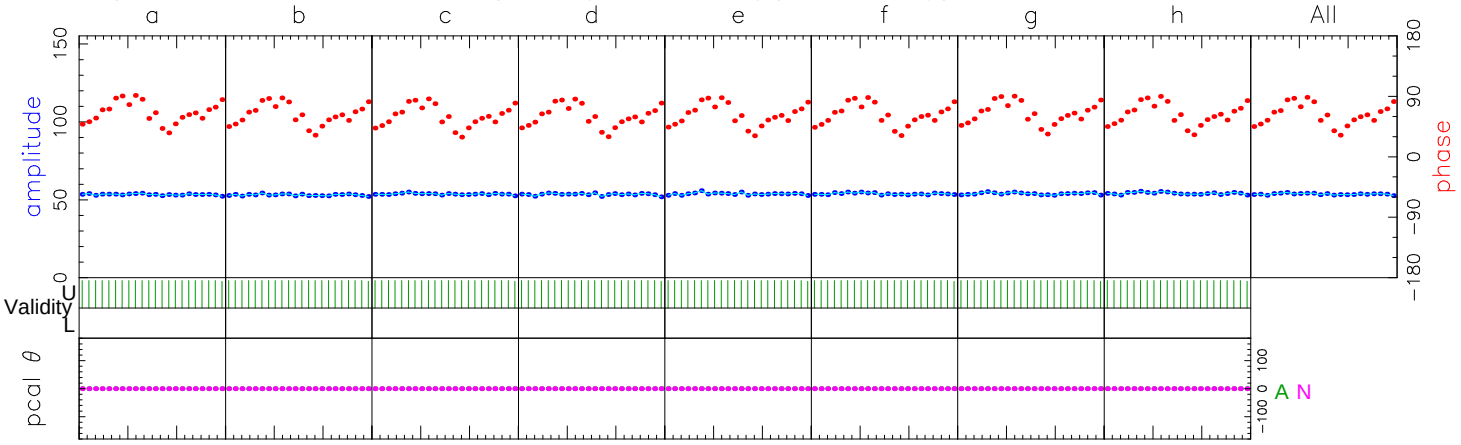
SNR 1899.0
Int time 179.976
Amp 51.762
Phase 63.0
PFD 0.0e+00
Delays (us)
SBD -0.004098
MBD 0.003438
Fringe rate (Hz)
0.001378
Ion TEC 0.000
Ref freq (MHz)
86140.0000
AP (sec) 0.512





Exp. mk013b
Exper # 16383
Yr:day 2021:113
Start 022000.00
Stop 022300.22
FRT 022130.00
Corr/FF/build
2022:164:113250
2022:164:132742
2022:109:102128
RA & Dec (J2000)
12h56m11.166577s
--5°47'21.525129"

Amp. and Phase vs. time for each freq., 22 segs, 16 APs / seg (8.19 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
	66.1	62.9	60.5	60.6	62.6	62.7	65.0	63.6	Phase	63.0
	51.5	51.3	51.8	51.6	51.9	51.9	52.0	52.2	Ampl.	51.8
	255.8	255.7	256.0	256.0	256.2	256.2	256.0	255.8	Sbd box	256.0
U/L	352/0	352/0	352/0	352/0	352/0	352/0	352/0	352/0	APs used	
A	0	0	0	0	0	0	0	0	PC freqs	
N	0	0	0	0	0	0	0	0	PC freqs	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	PC phase	
A:N	0:0	0:0	0:0	0:0	0:0	0:0	0:0	0:0	Manl PC	
A	1000	1000	1000	1000	1000	1000	1000	1000	PC amp	
N	1000	1000	1000	1000	1000	1000	1000	1000		
A	W00UR	W01UR	W02UR	W03UR	W04UR	W05UR	W06UR	W07UR	Chan ids Tracks	
N	W00UL	W01UL	W02UL	W03UL	W04UL	W05UL	W06UL	W07UL	Chan ids Tracks	

Group delay (usec) (SBD)	1.11666651430E+04	Apriori delay (usec)	1.11666617049E+04	Resid mbdelay (usec)	3.43808E-03	+/-	5.7E-07
Sband delay (usec)	1.11666576071E+04	Apriori clock (usec)	-2.0942419E+03	Resid sbdelay (usec)	-4.09775E-03	+/-	4.5E-06
Phase delay (usec)	1.11666617069E+04	Apriori clockrate (us/s)	-2.0000000E-07	Resid phdelay (usec)	2.03156E-06	+/-	1.9E-09
Delay rate (us/s)	1.31279298973E+00	Apriori rate (us/s)	1.31279297373E+00	Resid rate (us/s)	1.59978E-08	+/-	1.9E-11
Total phase (deg)	156.2	Apriori accel (us/s/s)	-5.78463499539E-05	Resid phase (deg)	63.0	+/-	0.1

	RMS	Theor.	Amplitude	51.762 +/- 0.027	Pcal mode: MANUAL, MANUAL	PC period (AP's) 5, 5		
ph/seg (deg)	15.6	0.1	Search (1024X32)	50.941	Pcal rate: 0.000E+00, 0.000E+00 (us/s)		sb window (us)	-1.000 1.000
amp/seg (%)	3.9	0.2	Interp.	0.000	Bits/sample: 2x2	SampCntNorm: enabled	mb window (us)	-0.008 0.008
ph/frq (deg)	2.1	0.1	Inc. seg. avg.	53.713	Data rate(MSamp/s): 128 MBpts 32 Amb 0.016 us		dr window (ns/s)	-0.011 0.011
amp/frq (%)	0.5	0.1	Inc. frq. avg.	51.775	Data rate(Mb/s): 2048	nlags: 256 t_cohere infinite	ion window (TEC)	0.00 0.00

A: az 43.9 el 67.1 pa -140.3 N: az 242.2 el 17.7 pa 39.3 u,v (fr/asec) -7592.779 -9151.140 simultaneous interpolator

Control file: cf_1234_gmva Input file: /Exps/mk013b/v1_pc1/5099/No0056/AN..28NFVJ Output file: /Exps/mk013b/v1_pc1/5099/No0056/AN.W.232.28NFVJ