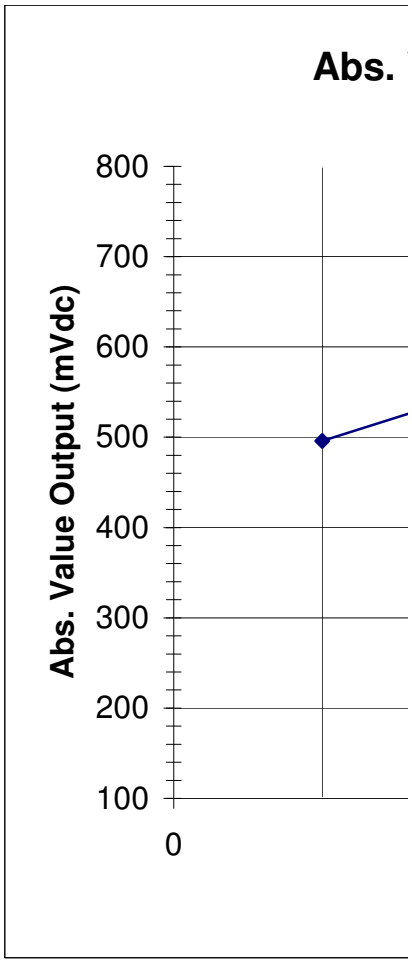
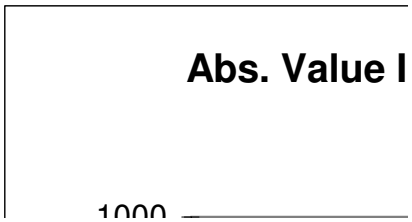
Abort BPM Electronics Tests
CH2 (Vertical)
Trigger Gate Wid=999ns Per=1ms Input=84 bunches @ 53MHz (84sine.wfm)
Output taken at -20dB testpoint on front panel terminated in 50 ohms

	Intensity Out (mVdc)	
Input (Vp-p) to CH1 & CH2	**-20dB T.P.**	**Abs (Intens)**
0.2	-496	496
0.4	-548	548
0.6	-580	580
0.8	-600	600
1.0	-620	620
1.2	-636	636
1.4	-648	648
1.6	-664	664
1.8	-672	672
2.0	-684	684
2.2	-688	688
2.4	-696	696
2.6	-704	704
2.8	-708	708
3.0	-714	714
3.4	-722	722
3.8	-726	726
4.2	-732	732
4.6	-734	734
5.0	-738	738
5.4	-742	742
5.8	-744	744

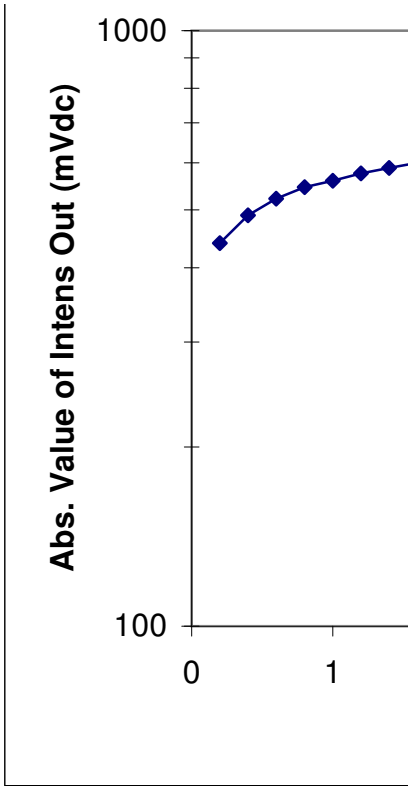


CH2 (Vertical)
Trigger Gate Wid=999ns Per=1ms Input=80 bunches separated by 5 buckets @ 5
(NUMIflat.wfm)
Output taken at -20dB testpoint on front panel

	Intensity Out (mVdc)	
Input (Vp-p) to CH1 & CH2	**-20dB T.P.**	**Abs (Intens)**
0.2	-440	440
0.4	-490	490
0.6	-522	522



0.8	-546	546
1.0	-560	560
1.2	-576	576
1.4	-588	588
1.6	-600	600
1.8	-610	610
2.0	-618	618
2.5	-702	702
3.0	-712	712
3.5	-722	722
4.0	-726	726
4.5	-732	732
5.0	-738	738
5.5	-740	740
6.0	-742	742



POSITION MEASUREMENTS

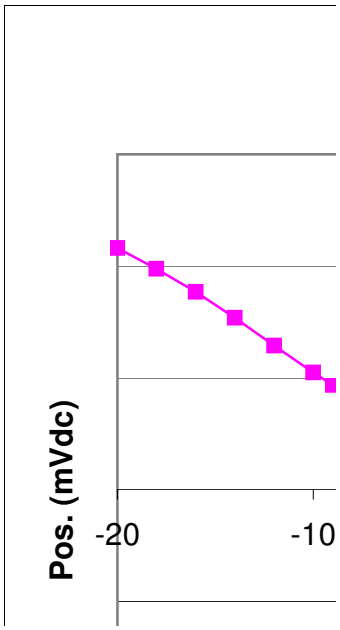
Input: 0.5Vp-p 80 bunches separated by 5 buck

NUMIflat.wfm

CH2 (Vertical)

CH2a Att. (dB)	**Pos Out (mVdc)**
0	-60
1	-124
2	-200
3	-264
4	-328
5	-392
6	-456
7	-512
8	-572
9	-636

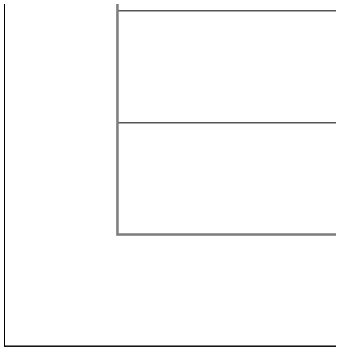
-20	1080
-18	988
-16	884
-14	768
-12	644
-10	524
-9	468
-8	400
-7	348
-6	276
-5	224
-4	152
-3	88
-2	20
-1	-44
0	-116
0	-60
1	-124



10	-692
12	-828
14	-948
16	-1060
18	-1150
20	-1240

CH2b Att. (dB)		**Pos Out (mVdc)**
0	0	-116
1	-1	-44
2	-2	20
3	-3	88
4	-4	152
5	-5	224
6	-6	276
7	-7	348
8	-8	400
9	-9	468
10	-10	524
12	-12	644
14	-14	768
16	-16	884
18	-18	988
20	-20	1080

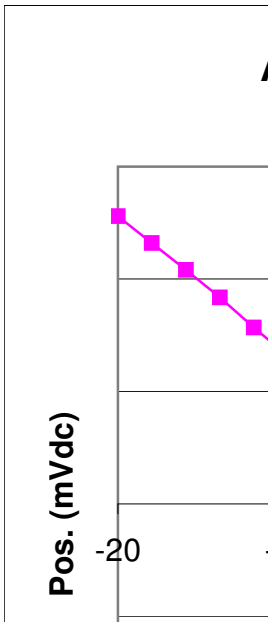
2	-200
3	-264
4	-328
5	-392
6	-456
7	-512
8	-572
9	-636
10	-692
12	-828
14	-948
16	-1060
18	-1150
20	-1240



Input: 1.68Vp-p 80 bunches separated by 5 buckets
NUMIflat.wfm
CH2 (Vertical)

CH2a Att. (dB)	**Pos Out (mVdc)**
0	0
1	-78
2	-154
3	-218
4	-282
5	-368
6	-436
7	-506
8	-572
9	-640
10	-716
12	-872
14	-1000

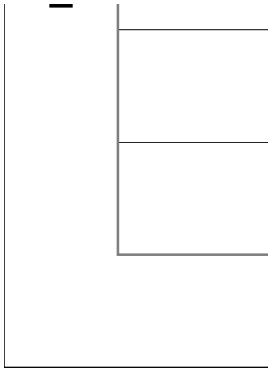
-20	1280
-18	1160
-16	1040
-14	918
-12	784
-10	658
-9	602
-8	520
-7	462
-6	388
-5	322
-4	230
-3	170
-2	104



16	-1120
18	-1250
20	-1350

CH2b Att. (dB)		**Pos Out (mVdc)**
0	0	-50
1	-1	34
2	-2	104
3	-3	170
4	-4	230
5	-5	322
6	-6	388
7	-7	462
8	-8	520
9	-9	602
10	-10	658
12	-12	784
14	-14	918
16	-16	1040
18	-18	1160
20	-20	1280

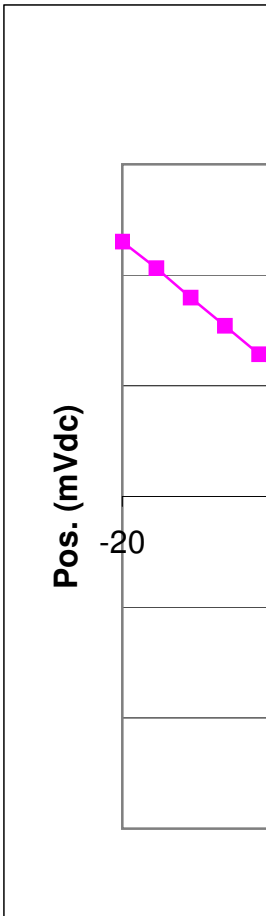
-1	34
0	-50
0	0
1	-78
2	-154
3	-218
4	-282
5	-368
6	-436
7	-506
8	-572
9	-640
10	-716
12	-872
14	-1000
16	-1120
18	-1250
20	-1350



Input: 5Vp-p 80 bunches separated by 5 buckets
NUMIflat.wfm, ext amp used for larger signal
CH2 (Vertical)

CH2a Att. (dB)	**Pos Out (mVdc)**
0	-36
1	-62
2	-94
3	-136
4	-182
5	-240
6	-304
7	-380
8	-450
9	-538
10	-610
12	-746
14	-886
16	-1030
18	-1170

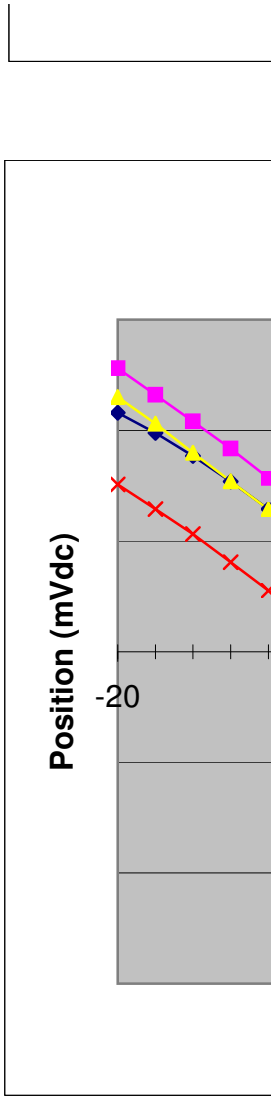
-20	1150
-18	1030
-16	898
-14	770
-12	642
-10	500
-9	436
-8	356
-7	284
-6	238
-5	178
-4	116
-3	66
-2	20
-1	-20



20		-1310

CH2b Att. (dB)		Pos Out (mVdc)
0	0	-50
1	-1	-20
2	-2	20
3	-3	66
4	-4	116
5	-5	178
6	-6	238
7	-7	284
8	-8	356
9	-9	436
10	-10	500
12	-12	642
14	-14	770
16	-16	898
18	-18	1030
20	-20	1150

0	-50
0	-36
1	-62
2	-94
3	-136
4	-182
5	-240
6	-304
7	-380
8	-450
9	-538
10	-610
12	-746
14	-886
16	-1030
18	-1170
20	-1310

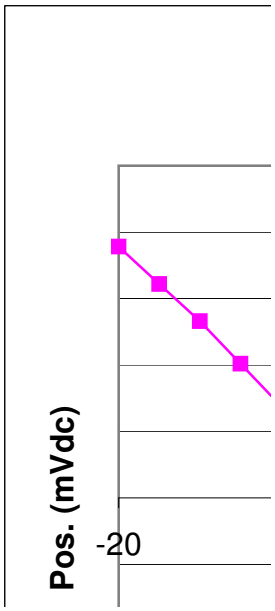


Input: 9Vp-p 80 bunches separated by 5 buckets
NUMIflat.wfm, ext amp used for larger signal
CH2 (Vertical)

CH2a Att. (dB)	Pos Out (mVdc)
0	-56
1	-80
2	-96
3	-108
4	-124
5	-148
6	-168
7	-196
8	-228
9	-268
10	-296
12	-400
14	-516
16	-632
18	-760
20	-860

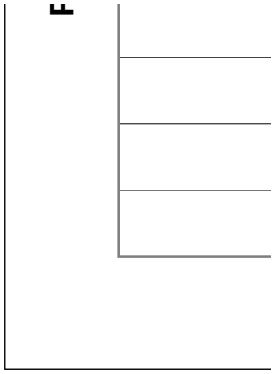
-20	756
-18	644
-16	532
-14	404
-12	276
-10	176
-9	140
-8	100
-7	64
-6	40
-5	16
-4	-4
-3	-24
-2	-36
-1	-60
0	-80
0	-56
1	-80

CH2b Att. (dB)	Pos Out (mVdc)

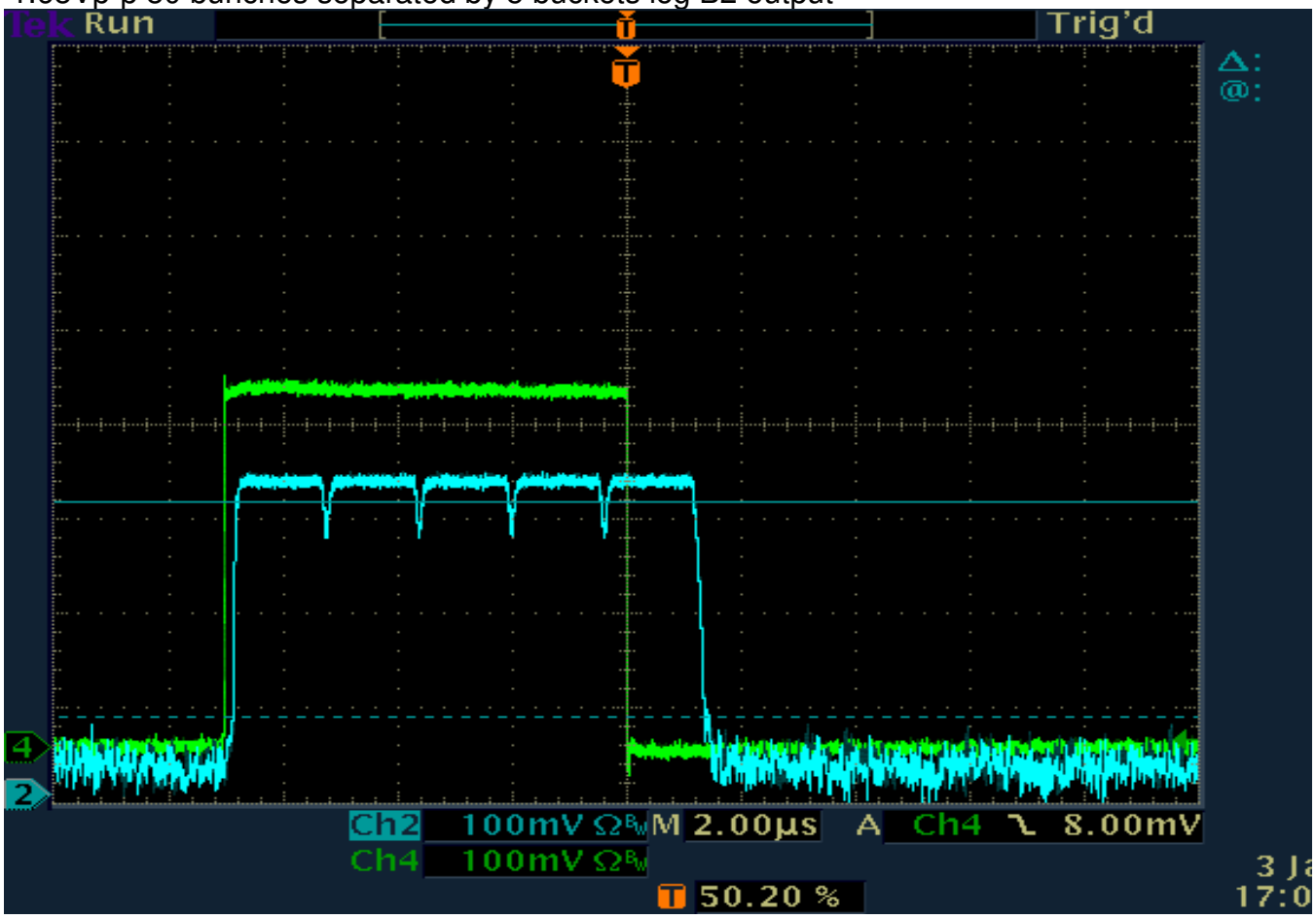


0	0	-80
1	-1	-60
2	-2	-36
3	-3	-24
4	-4	-4
5	-5	16
6	-6	40
7	-7	64
8	-8	100
9	-9	140
10	-10	176
12	-12	276
14	-14	404
16	-16	532
18	-18	644
20	-20	756

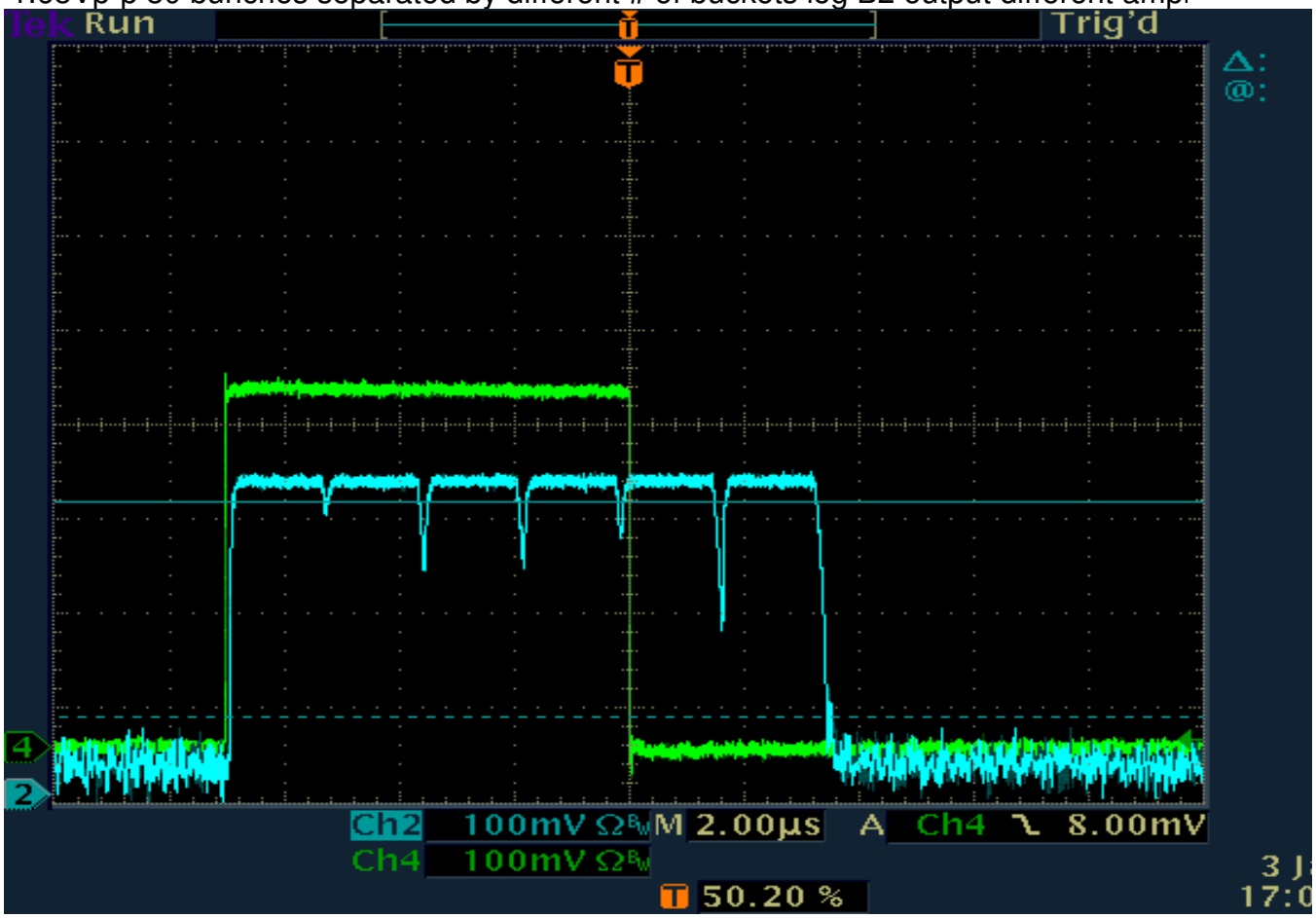
2	-96
3	-108
4	-124
5	-148
6	-168
7	-196
8	-228
9	-268
10	-296
12	-400
14	-516
16	-632
18	-760
20	-860

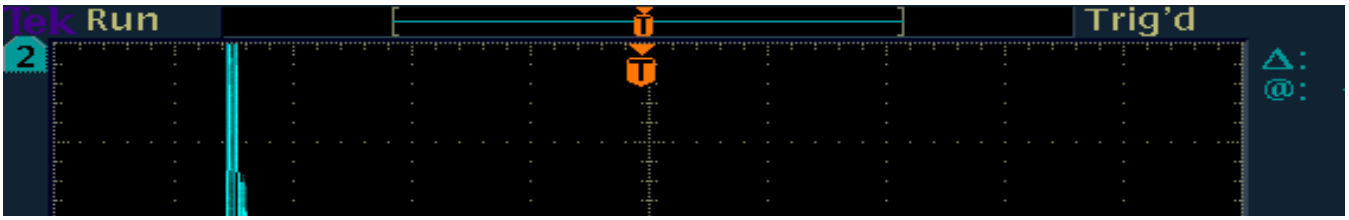


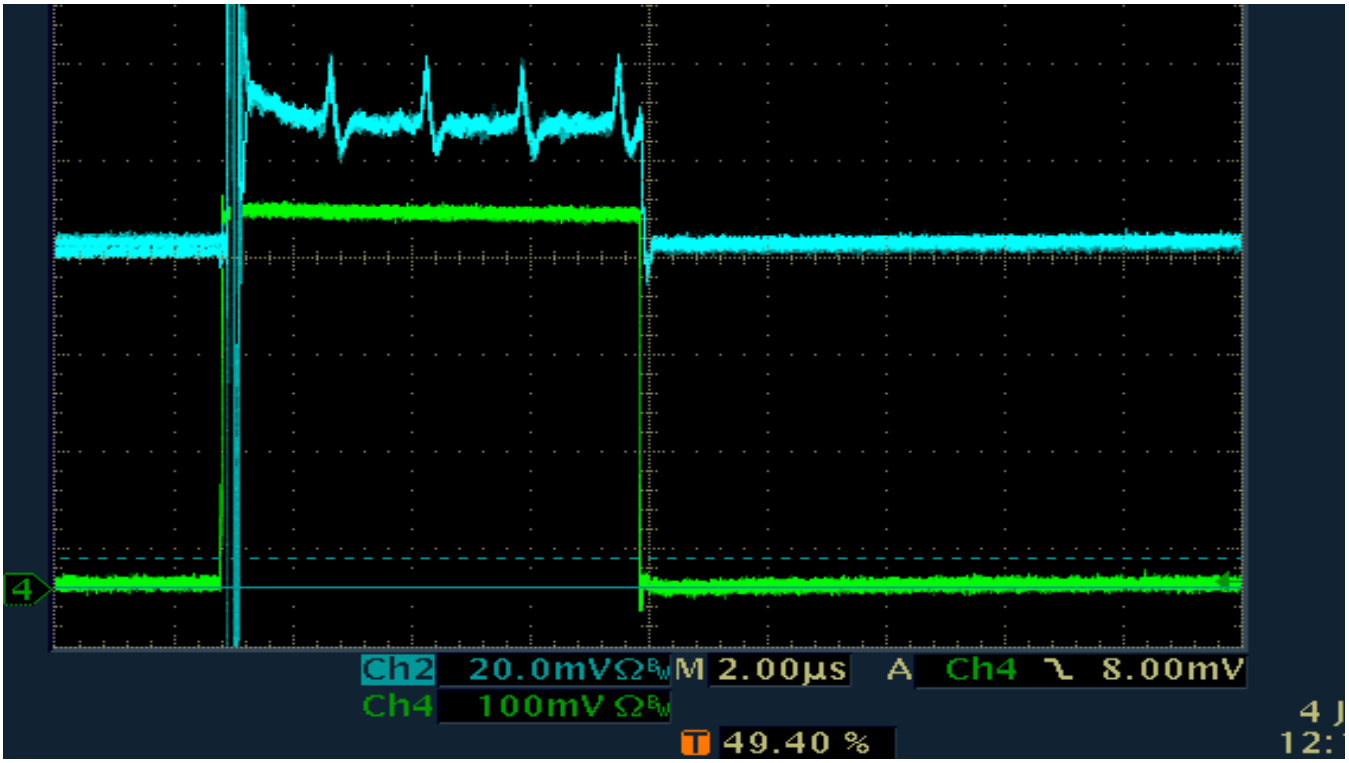
1.68Vp-p 80 bunches separated by 5 buckets log B2 output

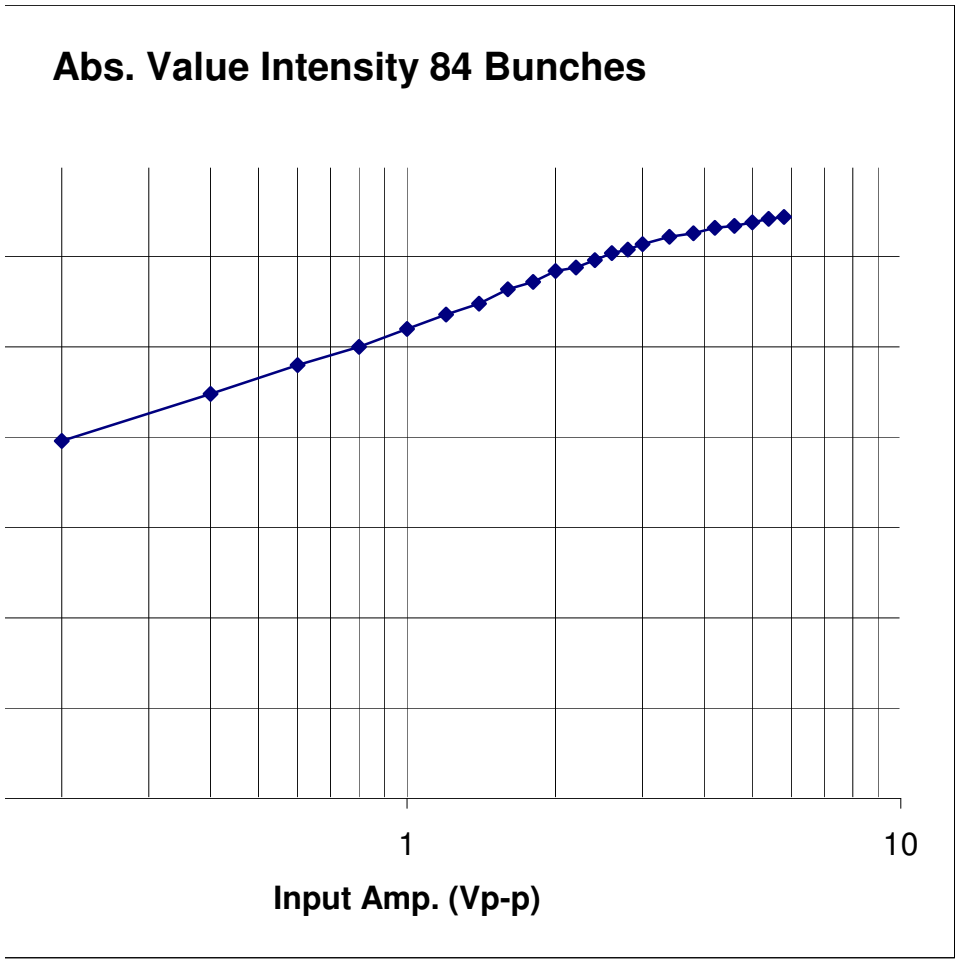


1.68Vp-p 80 bunches separated by different # of buckets log B2 output different ampl



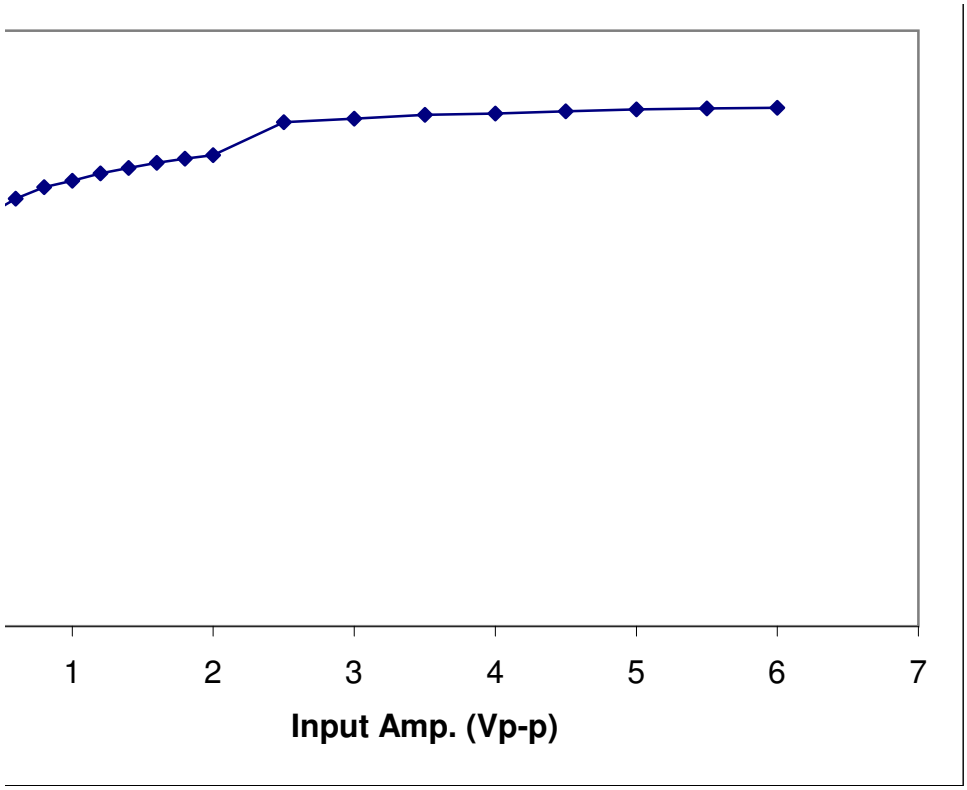


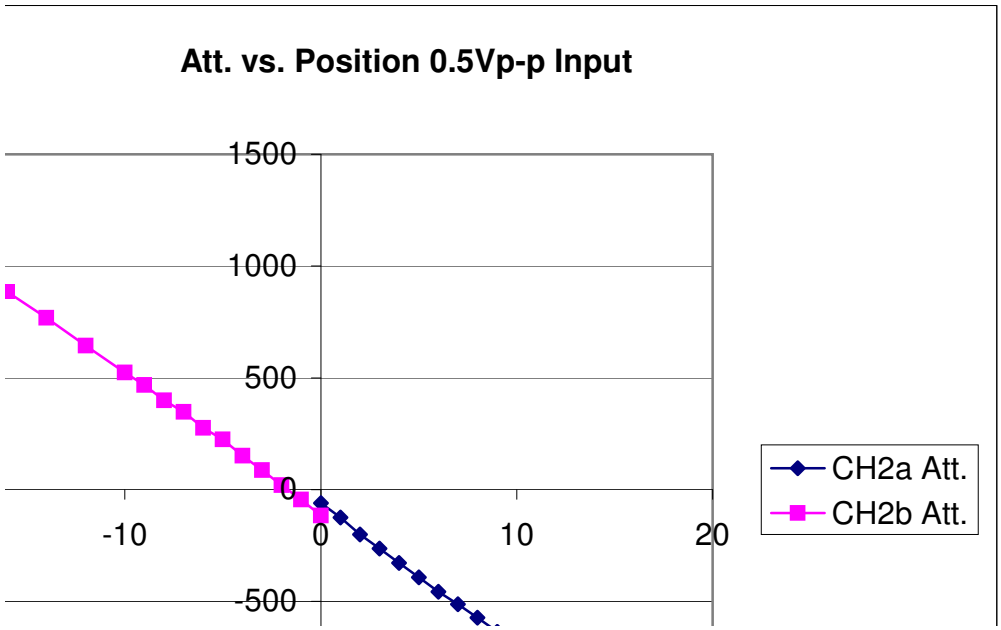

4
Ch2 20.0mV
M 2.00µs
A Ch4 8.00mV
Ch4 100mV
T 49.40 %

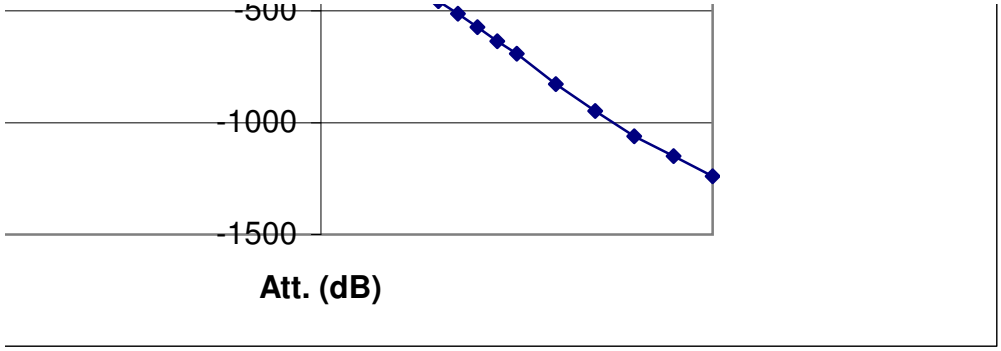

Abs. Value Intensity 84 Bunches
1
10
Input Amp. (Vp-p)

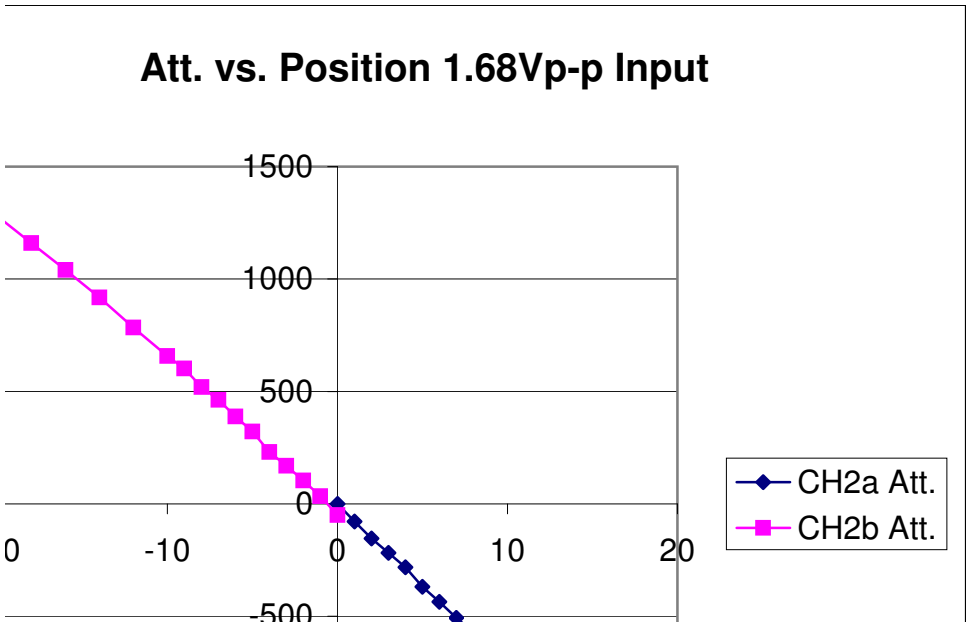
3MHz

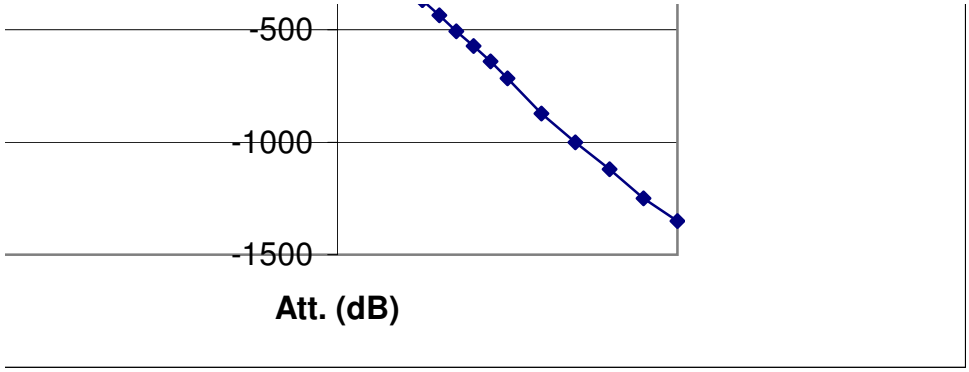
. Value Intens. 80 Bunches Separated by 5 Buckets

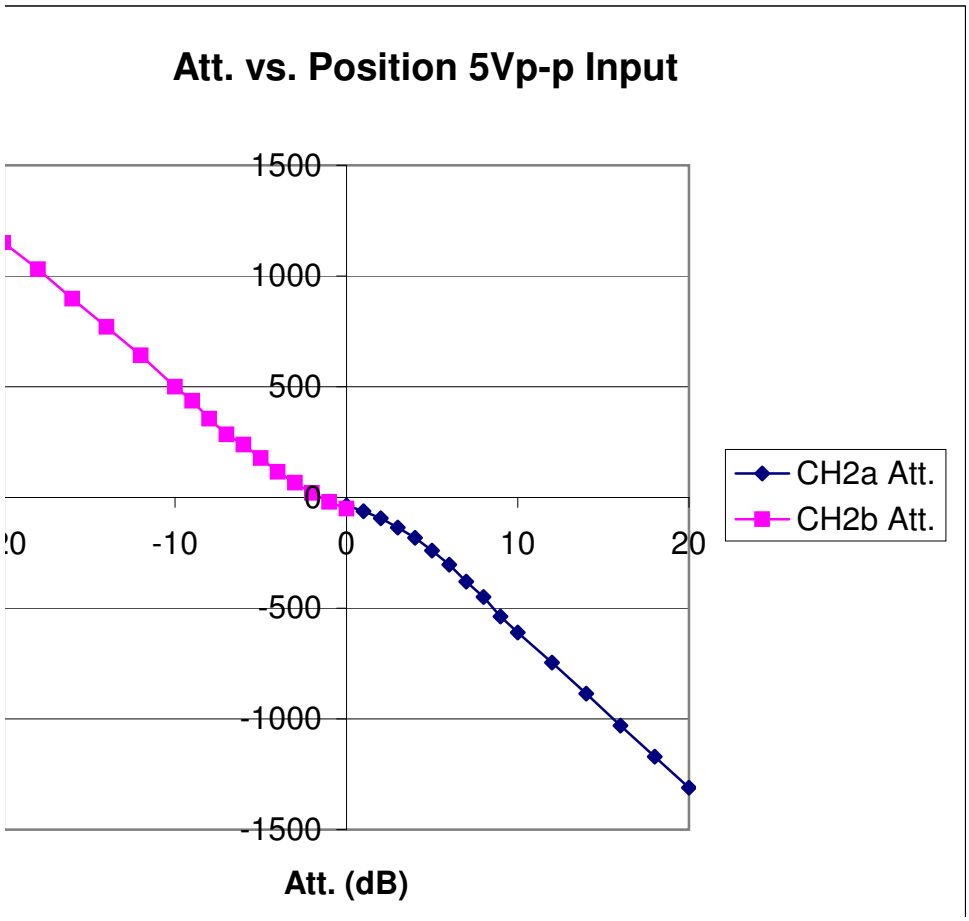

1
2
3
4
5
6
7
Input Amp. (Vp-p)


Att. vs. Position 0.5Vp-p Input
1500
1000
500
0
-500
-10
0
10
20
CH2a Att.
CH2b Att.

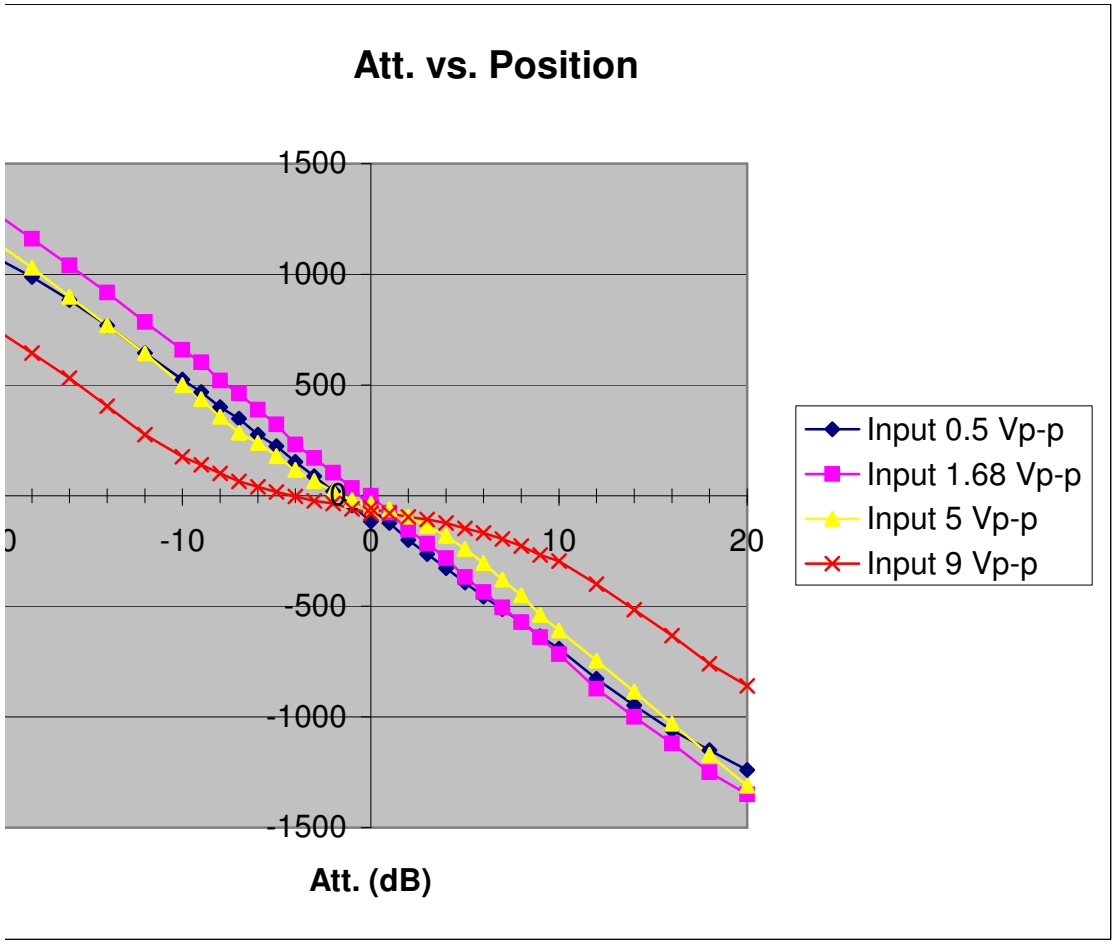

-500
-1000
-1500
Att. (dB)

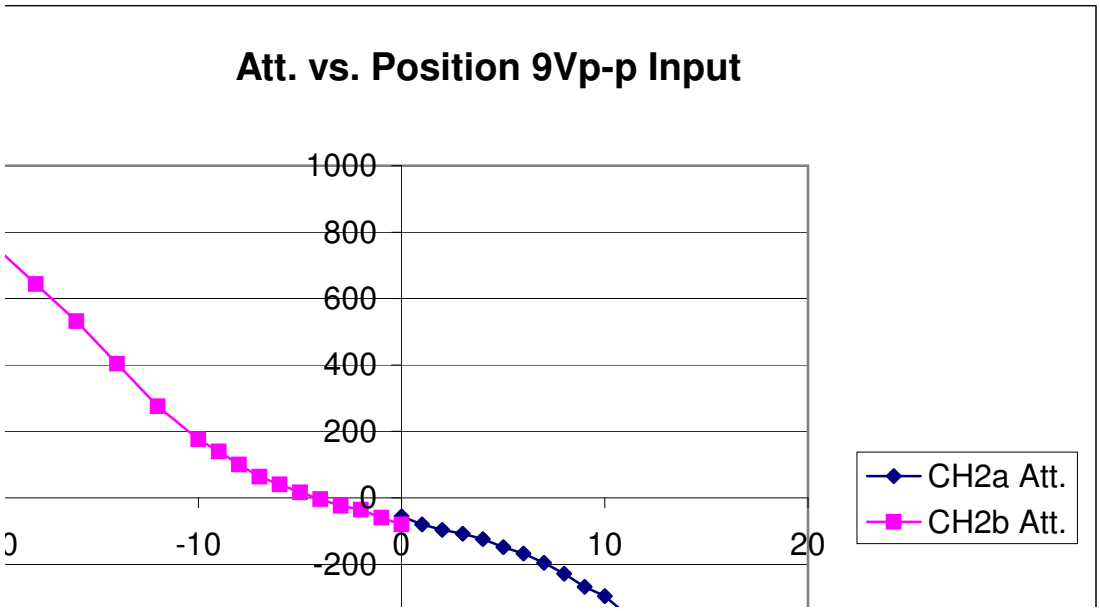

Att. vs. Position 1.68Vp-p Input
1500
1000
500
0
-500
0
-10
0
10
20
CH2a Att.
CH2b Att.

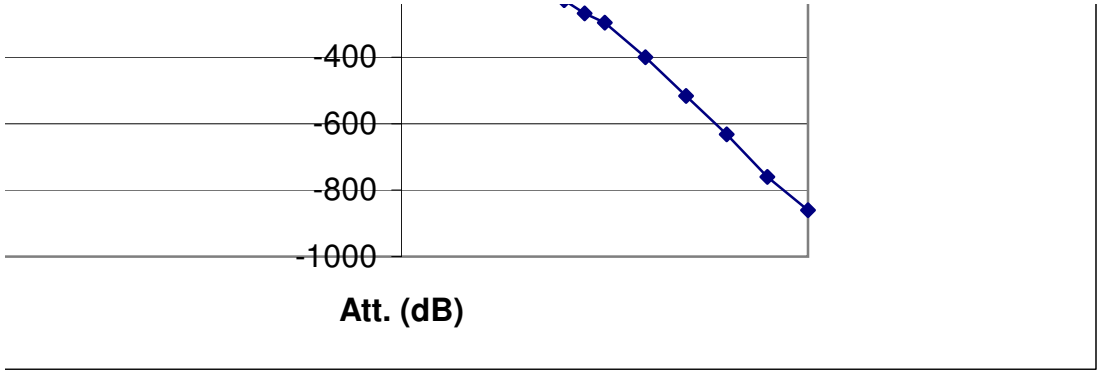

-500
-1000
-1500
Att. (dB)

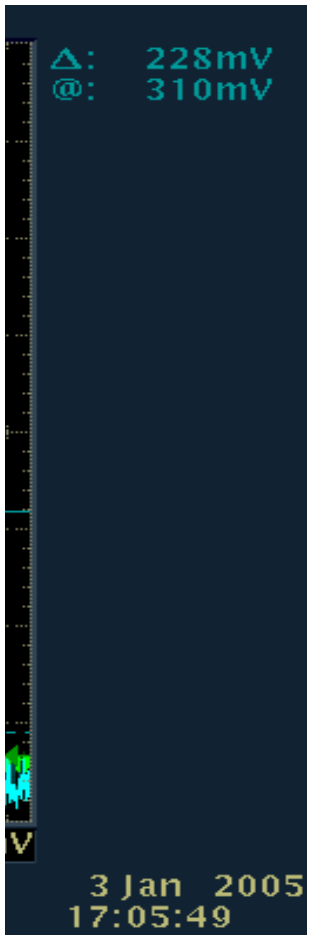

Att. vs. Position 5Vp-p Input
1500
1000
500
0
-500
-1000
-1500
-10
0
10
20
Att. (dB)
CH2a Att.
CH2b Att.

Att. (dB)

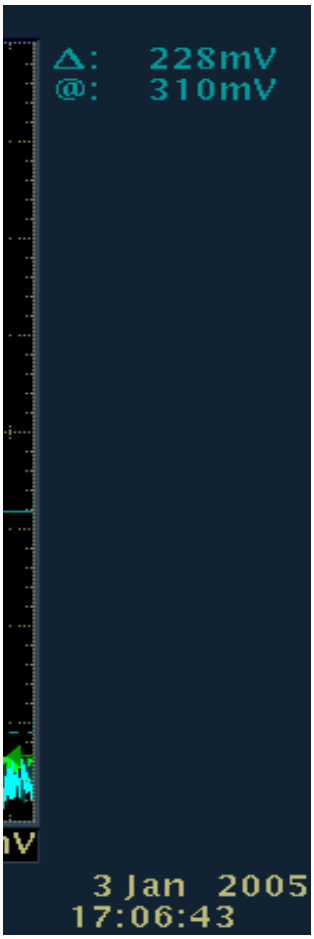

Att. vs. Position
1500
1000
500
0
-500
-1000
-1500
-10
0
10
20
Att. (dB)
Input 0.5 Vp-p
Input 1.68 Vp-p
Input 5 Vp-p
Input 9 Vp-p

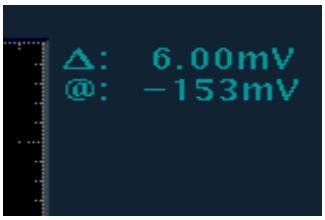

Att. vs. Position 9Vp-p Input
1000
800
600
400
200
0
-200
-10
0
10
20
CH2a Att.
CH2b Att.

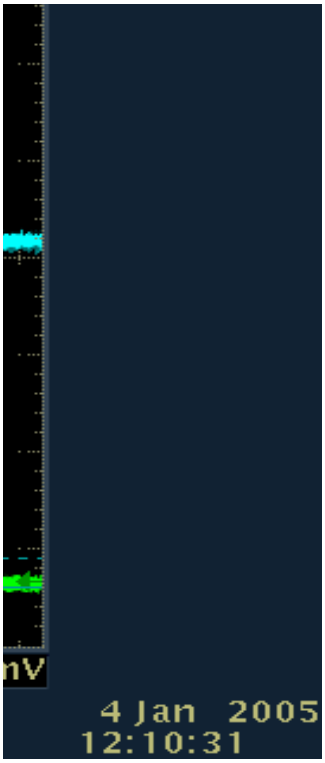

-400
-600
-800
-1000
Att. (dB)


Δ: 228mV
@: 310mV
3 Jan 2005
17:05:49

litudes for each batch






nV
4 Jan 2005
12:10:31