Annexe C

simulation

Ampli Yves Cochet Etude de **FP1g**

Etude temporelle

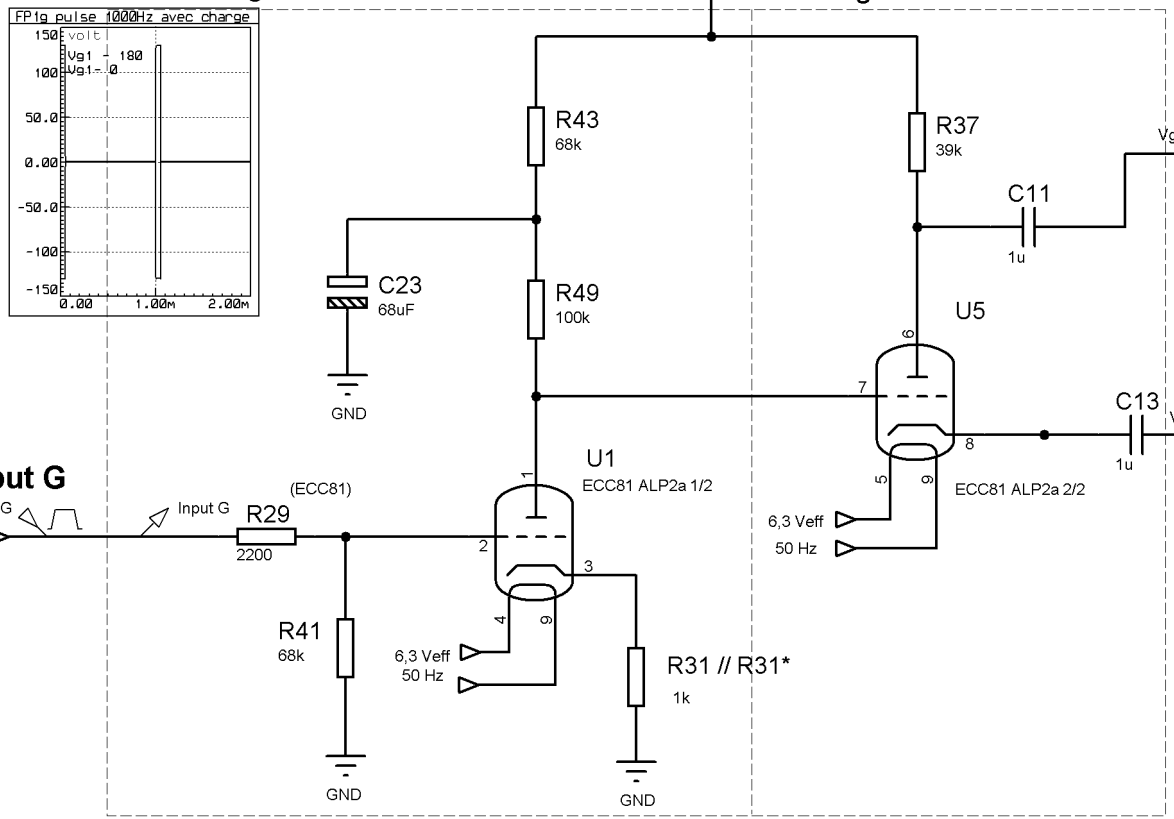
signaux impulsionnels

Etude temporelle signaux impulsionnels

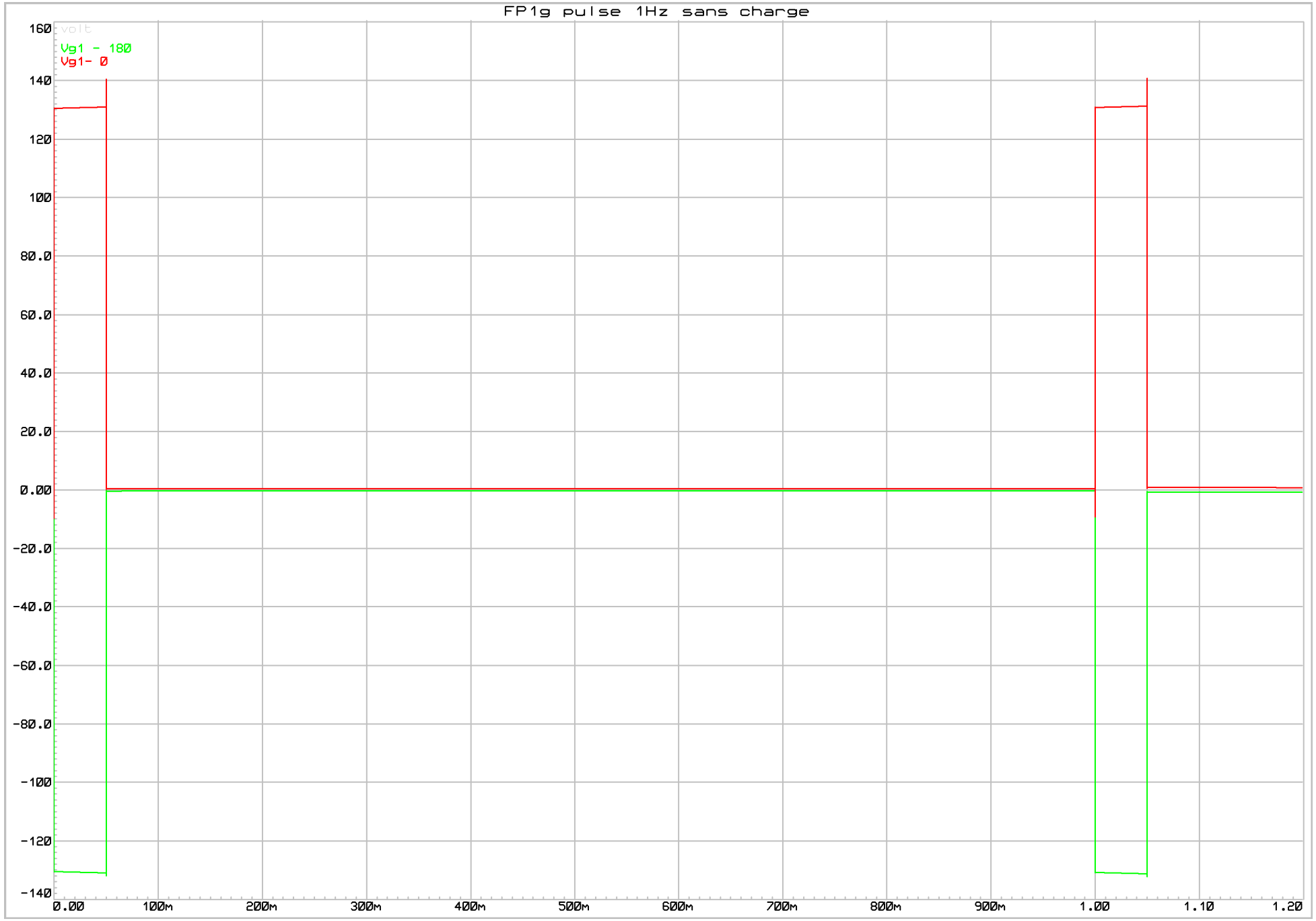
(sans charge Rc)

1 Hz – 10 Hz – 20 Hz – 100 Hz – 1000 Hz – 10 kHz – 20 kHz – 100 kHz – 1 MHz – 10 MHz

FP1g -DEPHASEUR Impulsion de +/- 2V r = 5%



FILE NAME:	Ampli Yves Cochet Etude de FP1g - sans charge.DSN	DATE:	28/12/2012
DESIGN TITLE:	Ampli Yves COCHET ALP2a	PAGE:	1 of 1
PATH:	DEPHASEUR		
BY:	Didier VILLERS	REV: 1e	TIME: 10:21:24

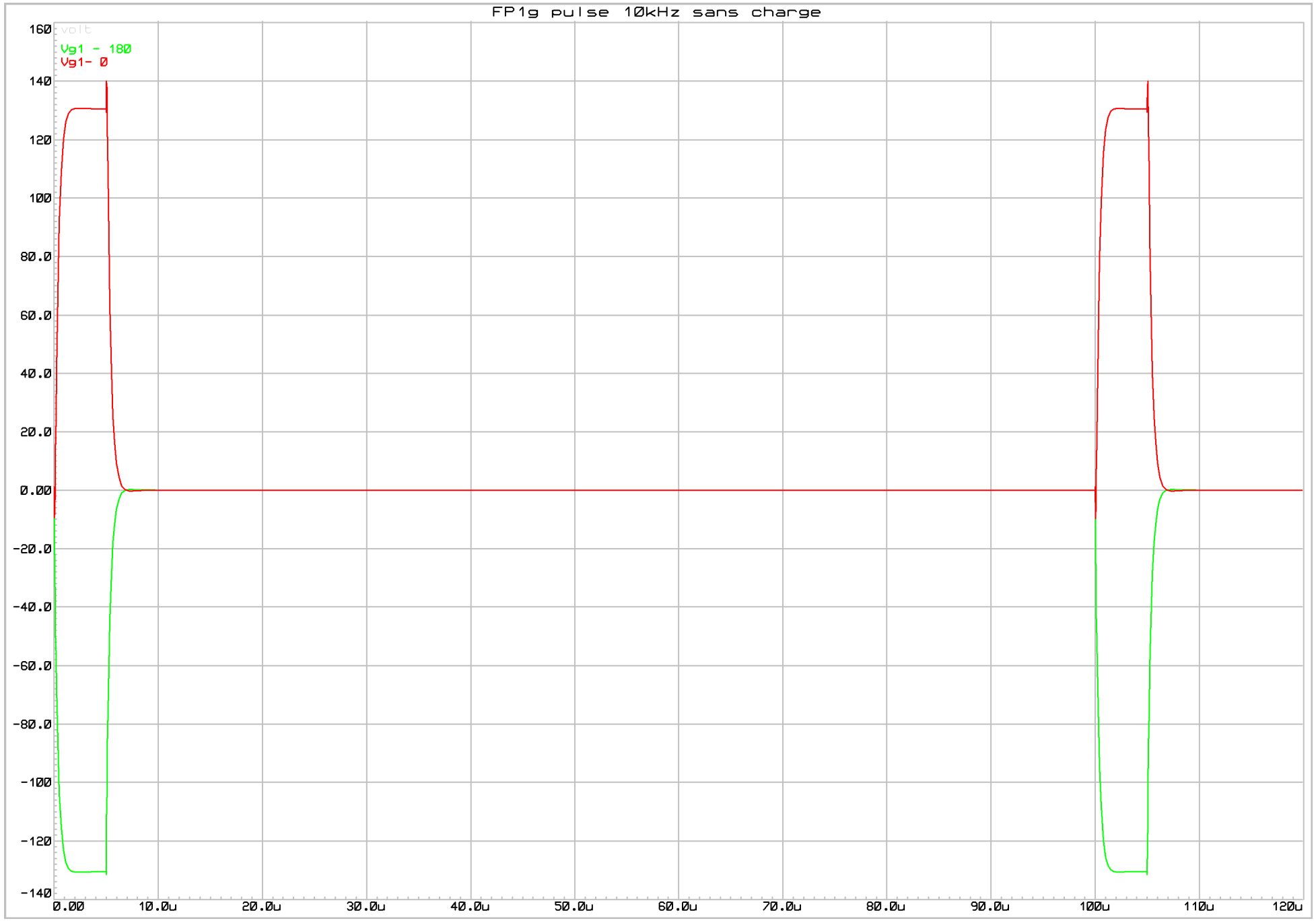

FP1g pulse 1Hz sans charge
volt
Vg1 - 180
Vg1- 0
160
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
100m
200m
300m
400m
500m
600m
700m
800m
900m
1.00
1.10
1.20

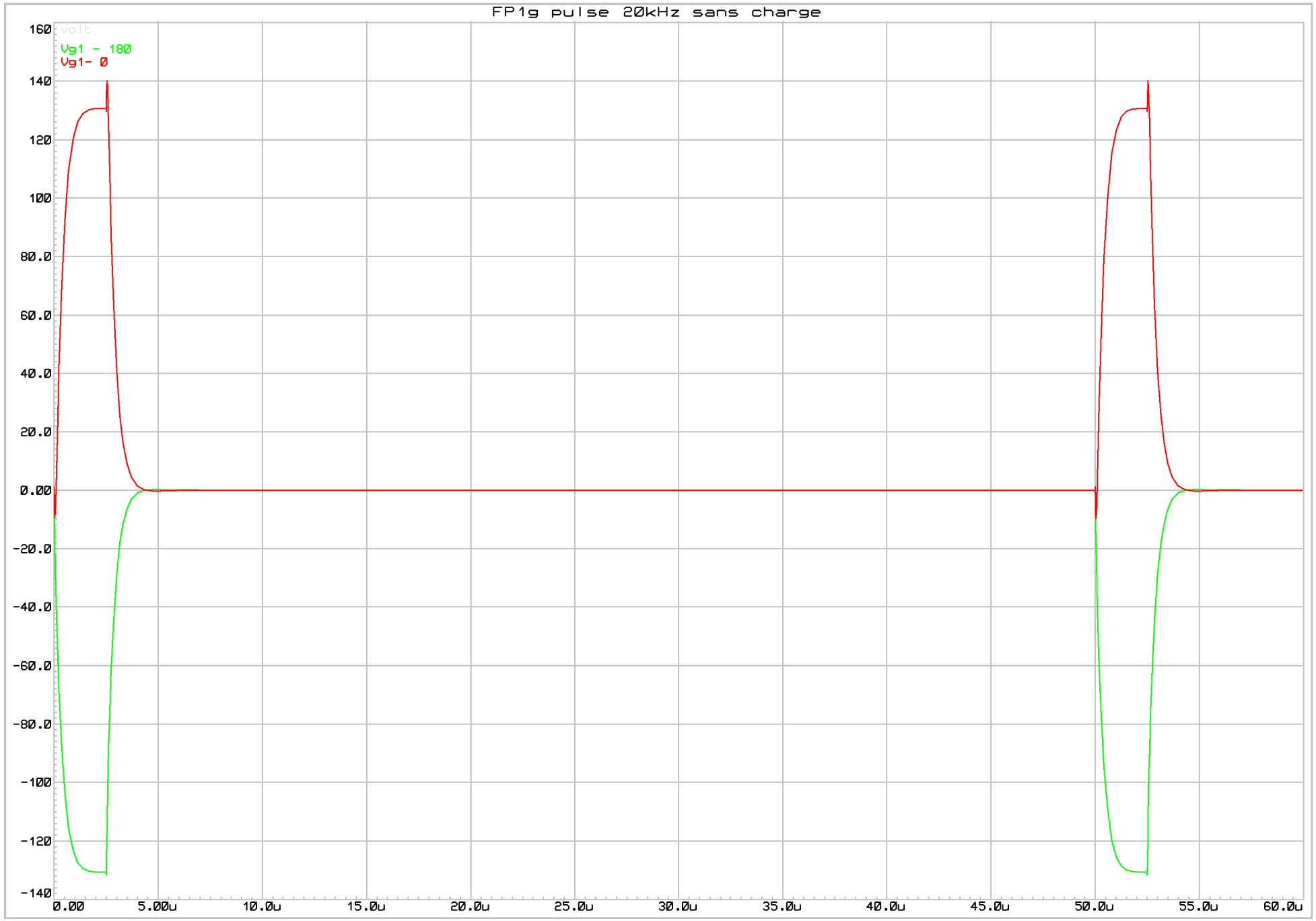

FP1g pulse 10Hz sans charge
volt
Vg1 - 180
Vg1- 0
160
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
10.0m
20.0m
30.0m
40.0m
50.0m
60.0m
70.0m
80.0m
90.0m
100m
110m
120m

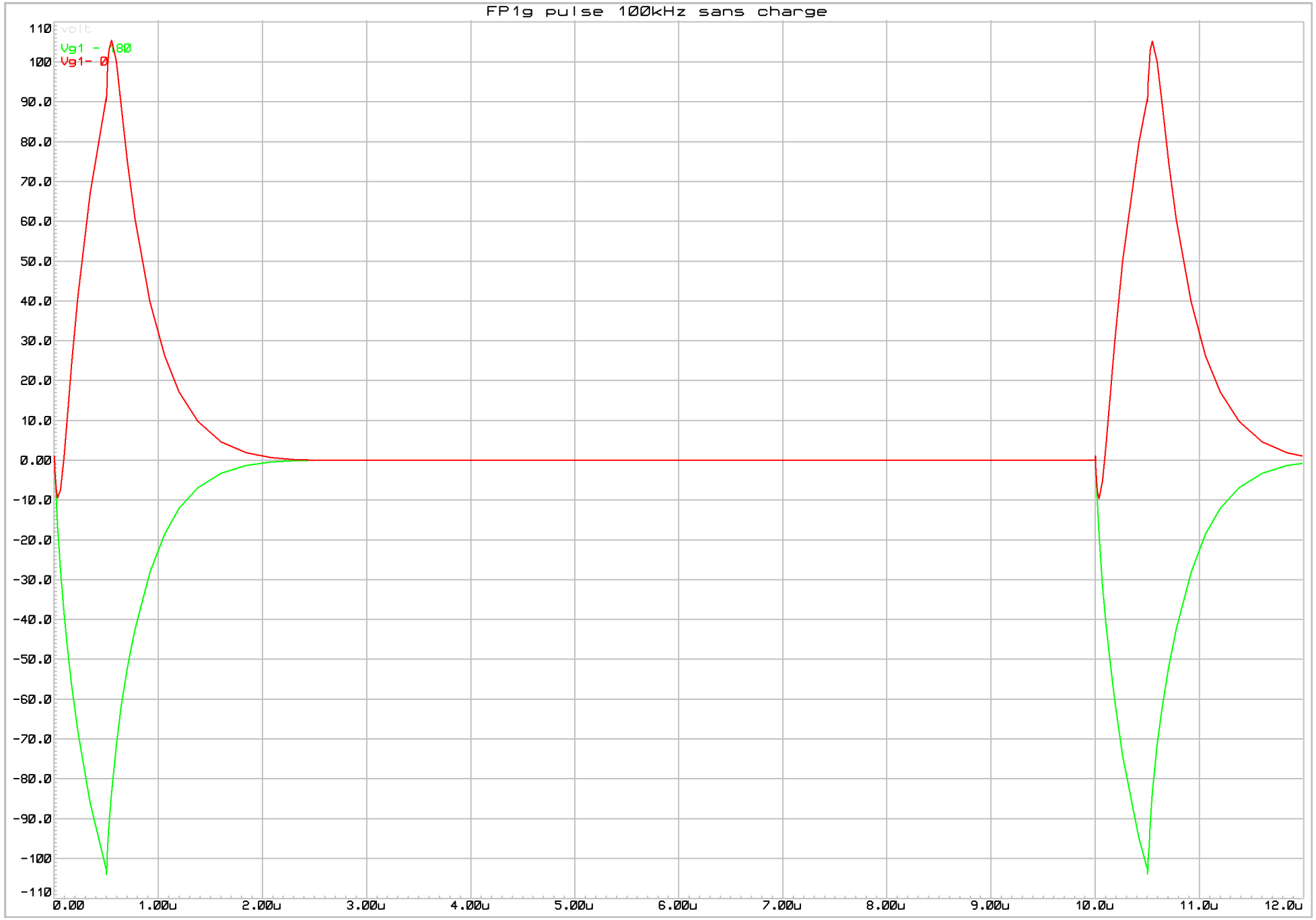

FP1g pulse 20Hz sans charge
volt
Vg1 - 180
Vg1- 0
160
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
5.00m
10.0m
15.0m
20.0m
25.0m
30.0m
35.0m
40.0m
45.0m
50.0m
55.0m
60.0m

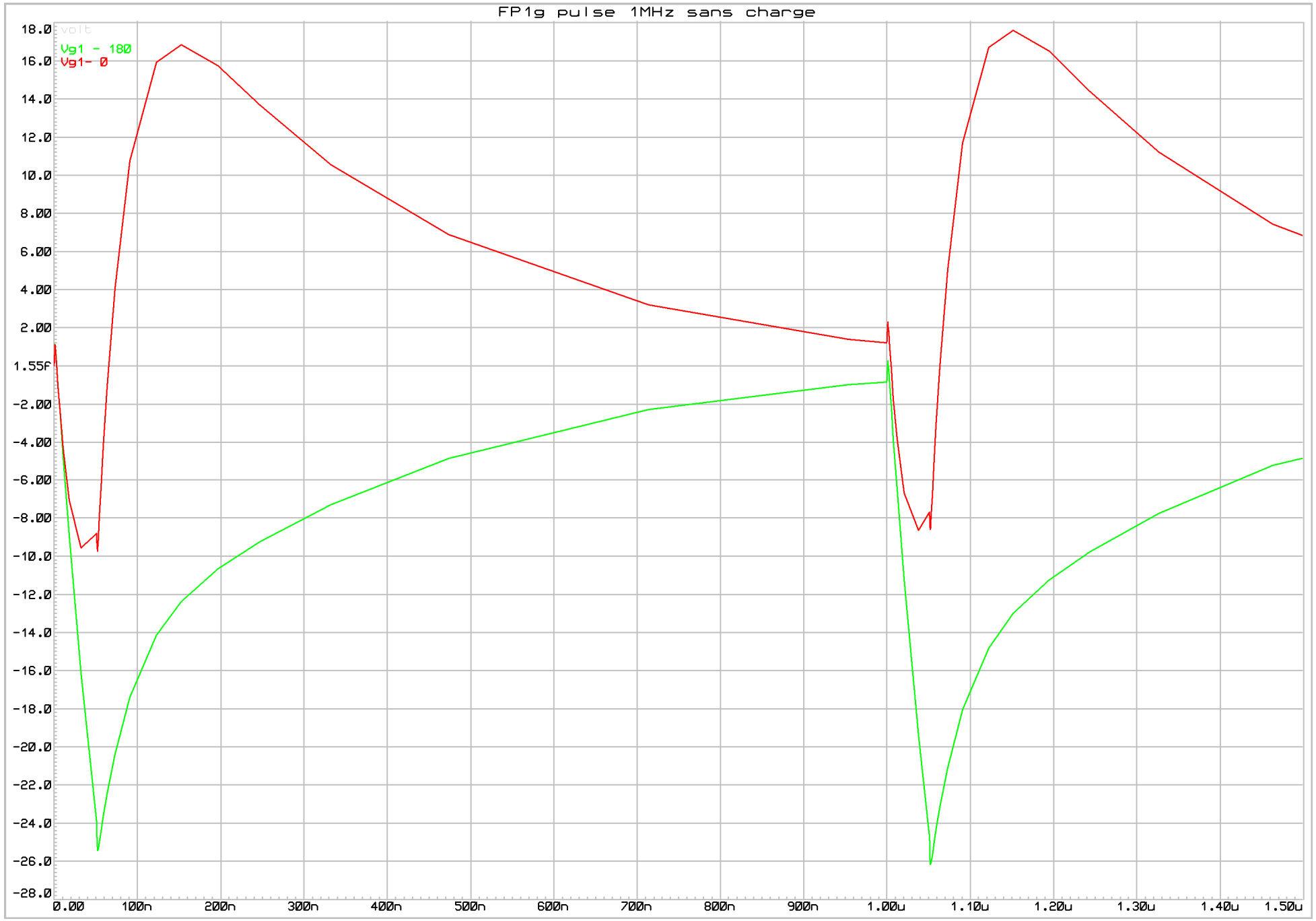

FP1g pulse 100Hz sans charge
volt
Vg1 - 180
Vg1- 0
160
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
1.00m
2.00m
3.00m
4.00m
5.00m
6.00m
7.00m
8.00m
9.00m
10.0m
11.0m
12.0m

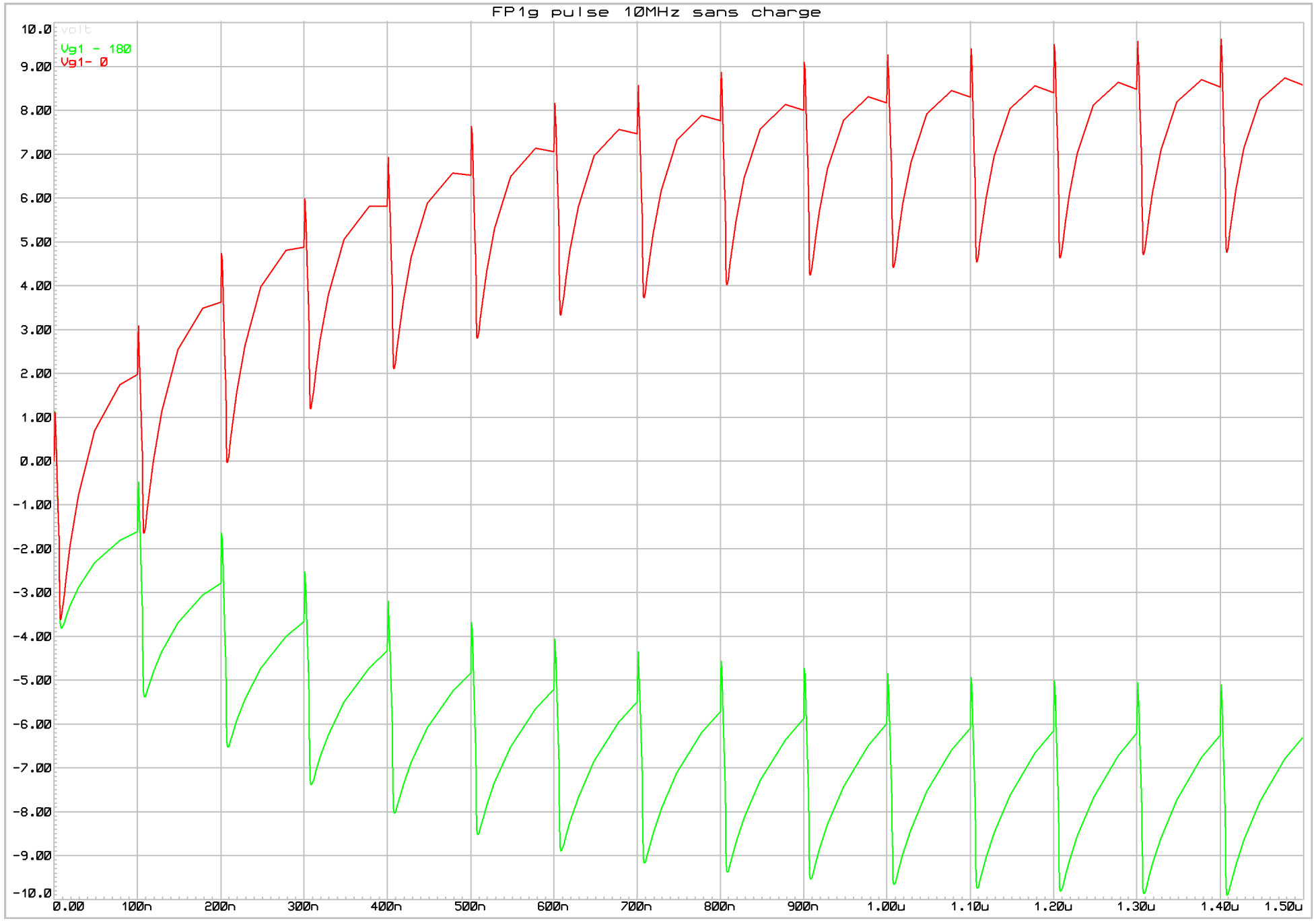

FP1g pulse 1000Hz sans charge
volt
Vg1 - 180
Vg1- 0
160
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
100u
200u
300u
400u
500u
600u
700u
800u
900u
1.00m
1.10m
1.20m


FP1g pulse 10kHz sans charge
volt
Vg1 - 180
Vg1- 0
160
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
10.0u
20.0u
30.0u
40.0u
50.0u
60.0u
70.0u
80.0u
90.0u
100u
110u
120u


FP1g pulse 20kHz sans charge
volt
Vg1 - 180
Vg1- 0
160
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
5.00u
10.0u
15.0u
20.0u
25.0u
30.0u
35.0u
40.0u
45.0u
50.0u
55.0u
60.0u


FP1g pulse 100kHz sans charge
volt
Vg1 - 180
Vg1- 0
110
100
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
0.00
1.00u
2.00u
3.00u
4.00u
5.00u
6.00u
7.00u
8.00u
9.00u
10.0u
11.0u
12.0u


FP1g pulse 1MHz sans charge
volt
Vg1 - 180
Vg1- 0
18.0
16.0
14.0
12.0
10.0
8.00
6.00
4.00
2.00
1.55f
-2.00
-4.00
-6.00
-8.00
-10.0
-12.0
-14.0
-16.0
-18.0
-20.0
-22.0
-24.0
-26.0
-28.0
0.00
100n
200n
300n
400n
500n
600n
700n
800n
900n
1.00u
1.10u
1.20u
1.30u
1.40u
1.50u

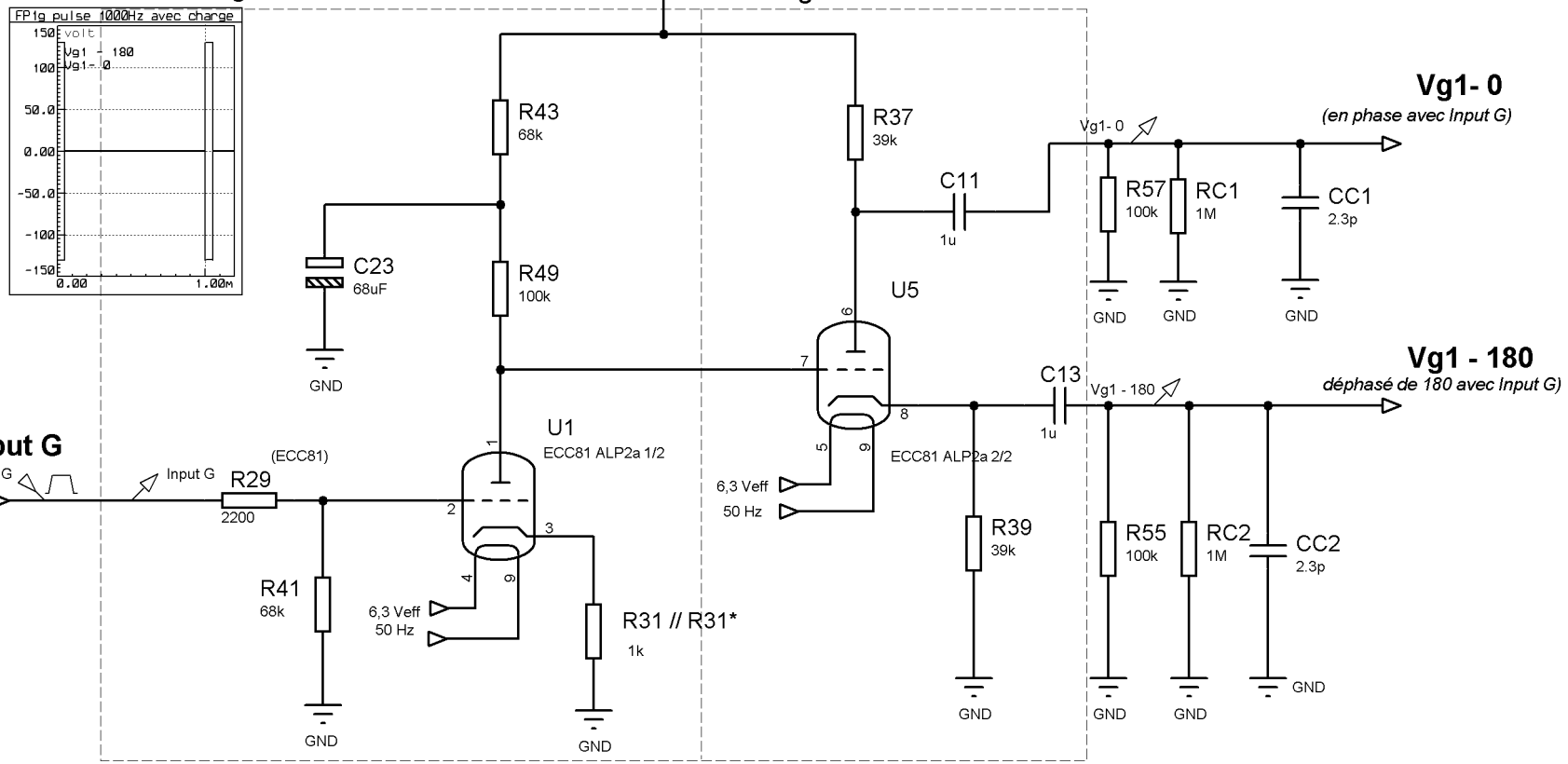

FP1g pulse 10MHz sans charge
volt
Vg1 - 180
Vg1- 0
10.0
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
-4.00
-5.00
-6.00
-7.00
-8.00
-9.00
-10.0
0.00
100n
200n
300n
400n
500n
600n
700n
800n
900n
1.00u
1.10u
1.20u
1.30u
1.40u
1.50u

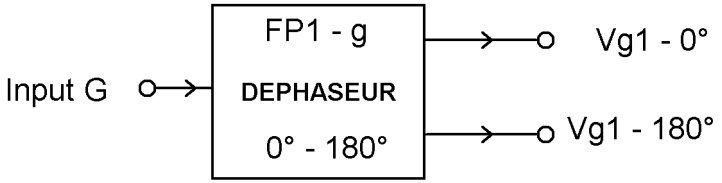
Etude temporelle signaux impulsionnels

(avec charge Rc)

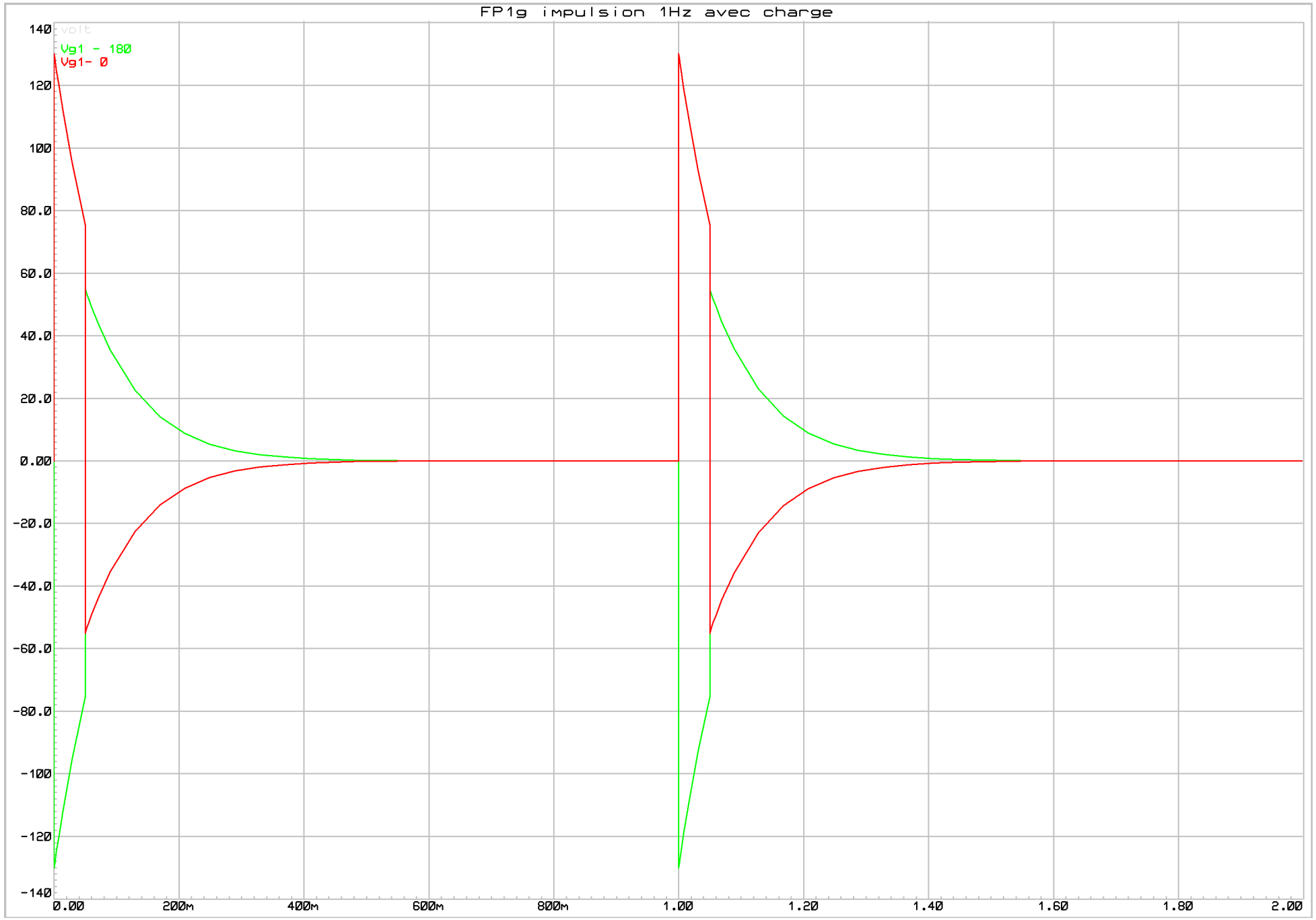
1 Hz – 10 Hz – 20 Hz – 100 Hz – 1000 Hz – 10 kHz – 20 kHz – 100 kHz – 1 MHz – 10 MHz

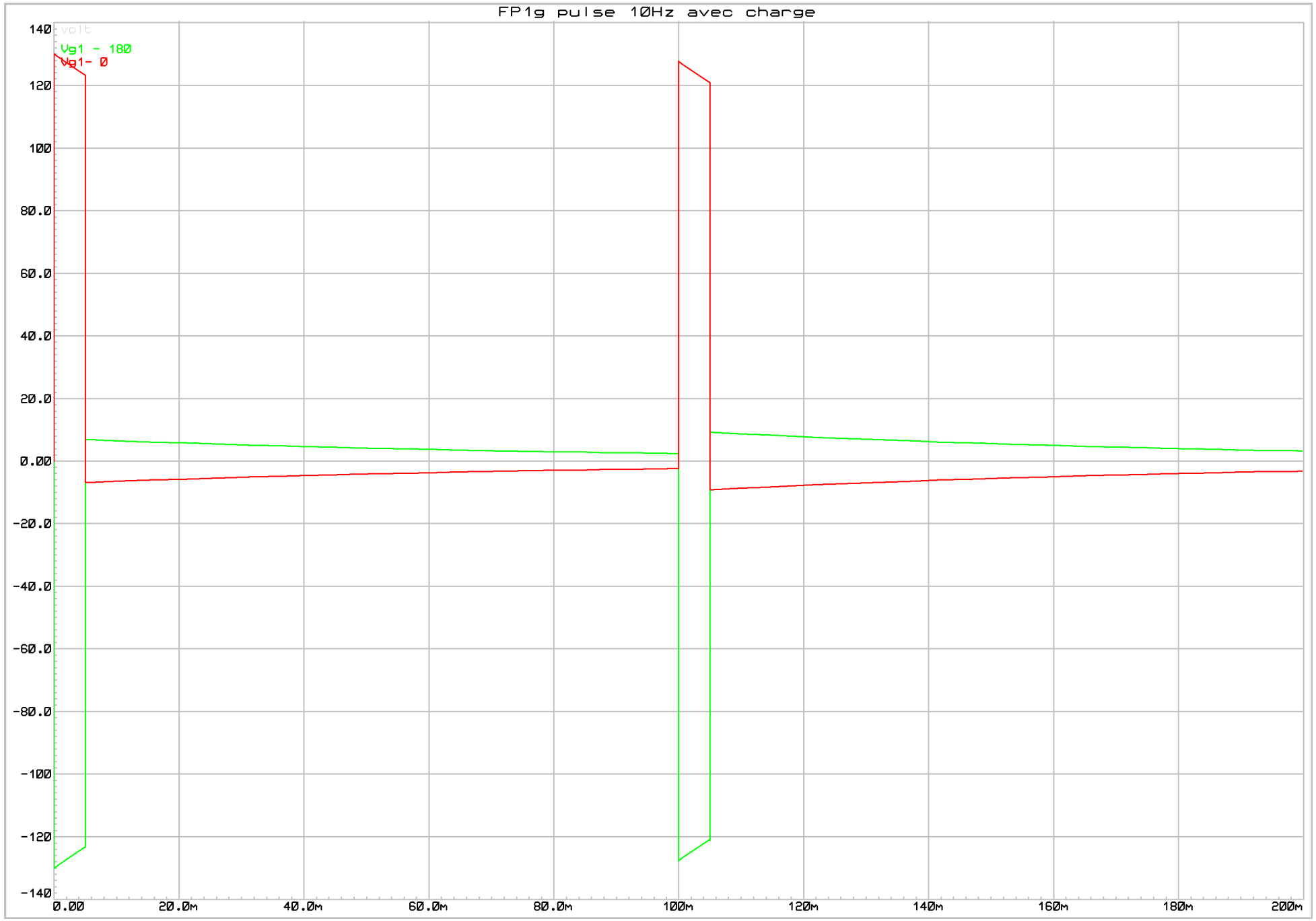
FP1g -DEPHASEUR Impulsion de +/- 2V r = 5%

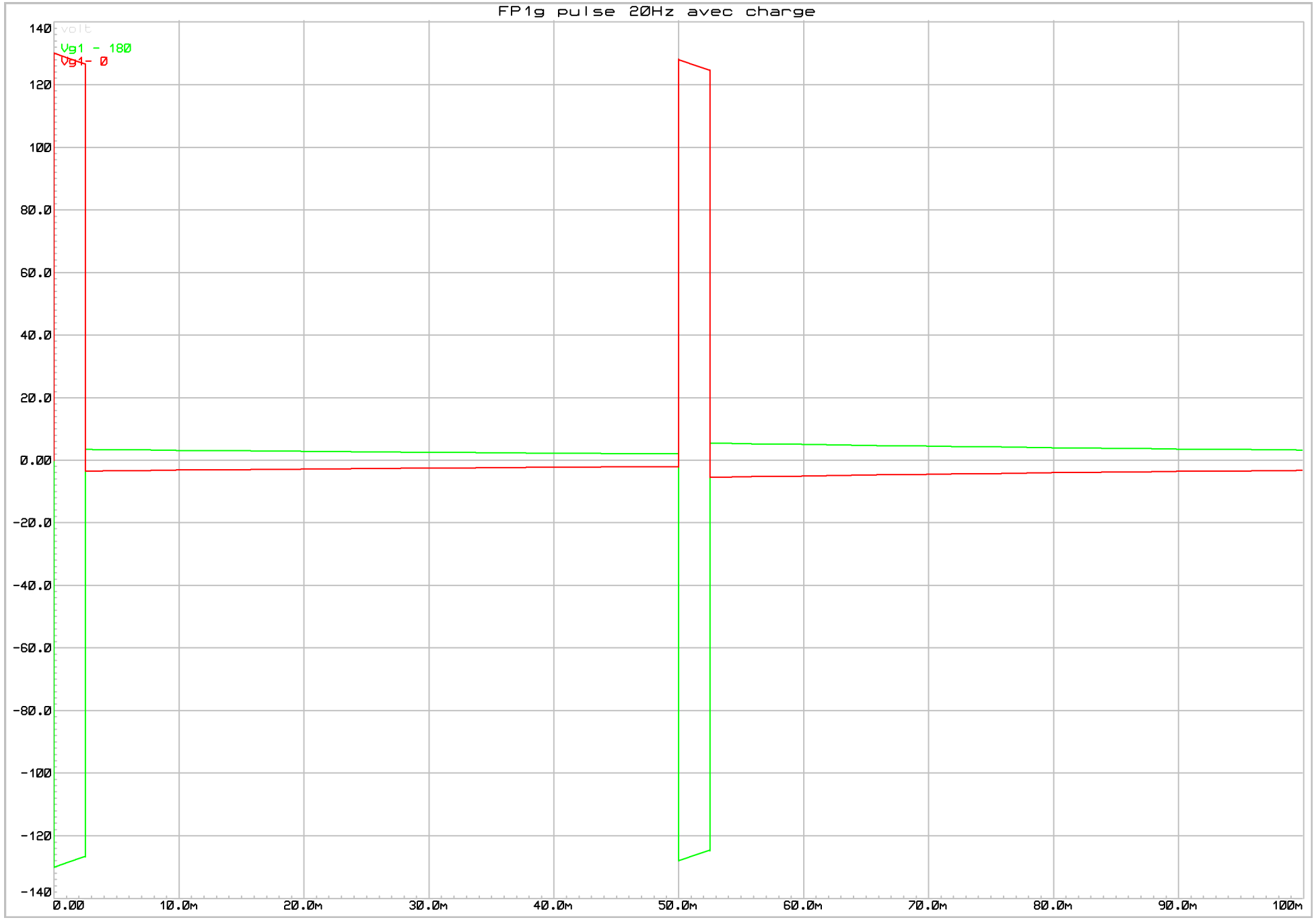


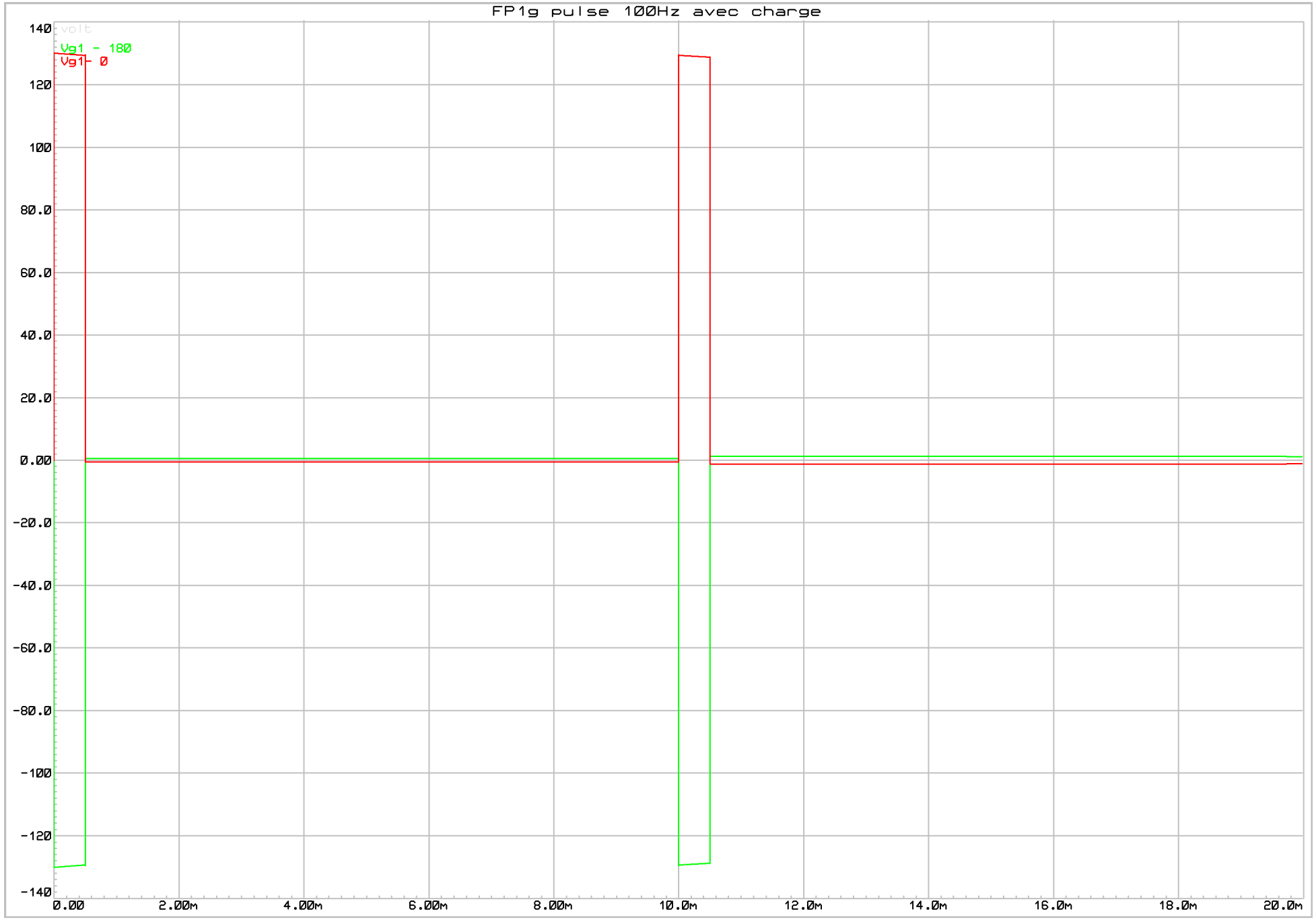


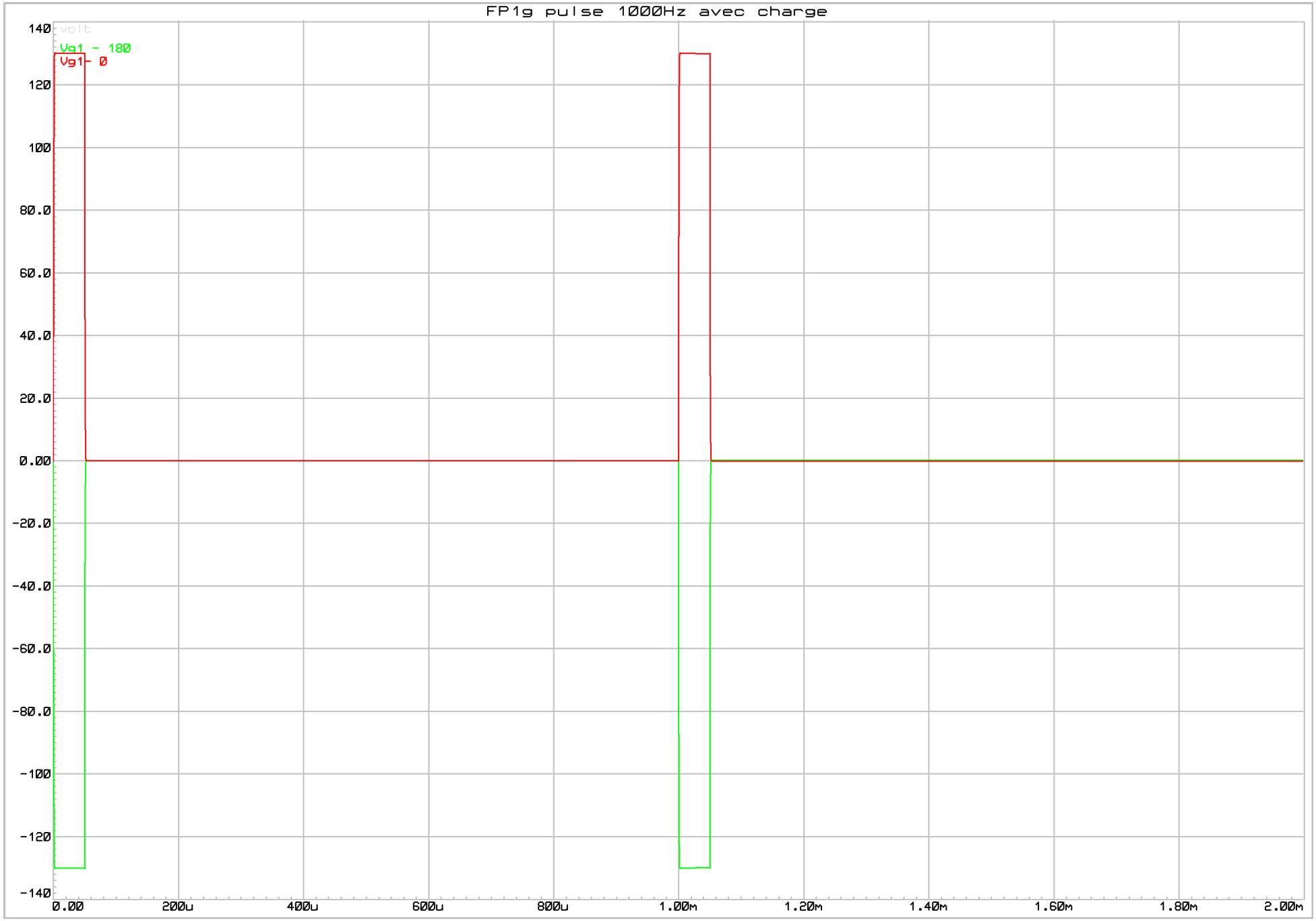
FILE NAME:	Ampli Yves Cochet Etude de FP1g - modele spice avec charge.DSN	DATE:	27/12/2012
DESIGN TITLE:	Ampli Yves COCHET ALP2a	PAGE:	1 of 1
PATH:	DEPHASEUR		
BY:	Didier VILLERS	REV:	1e
		TIME:	20:21:36

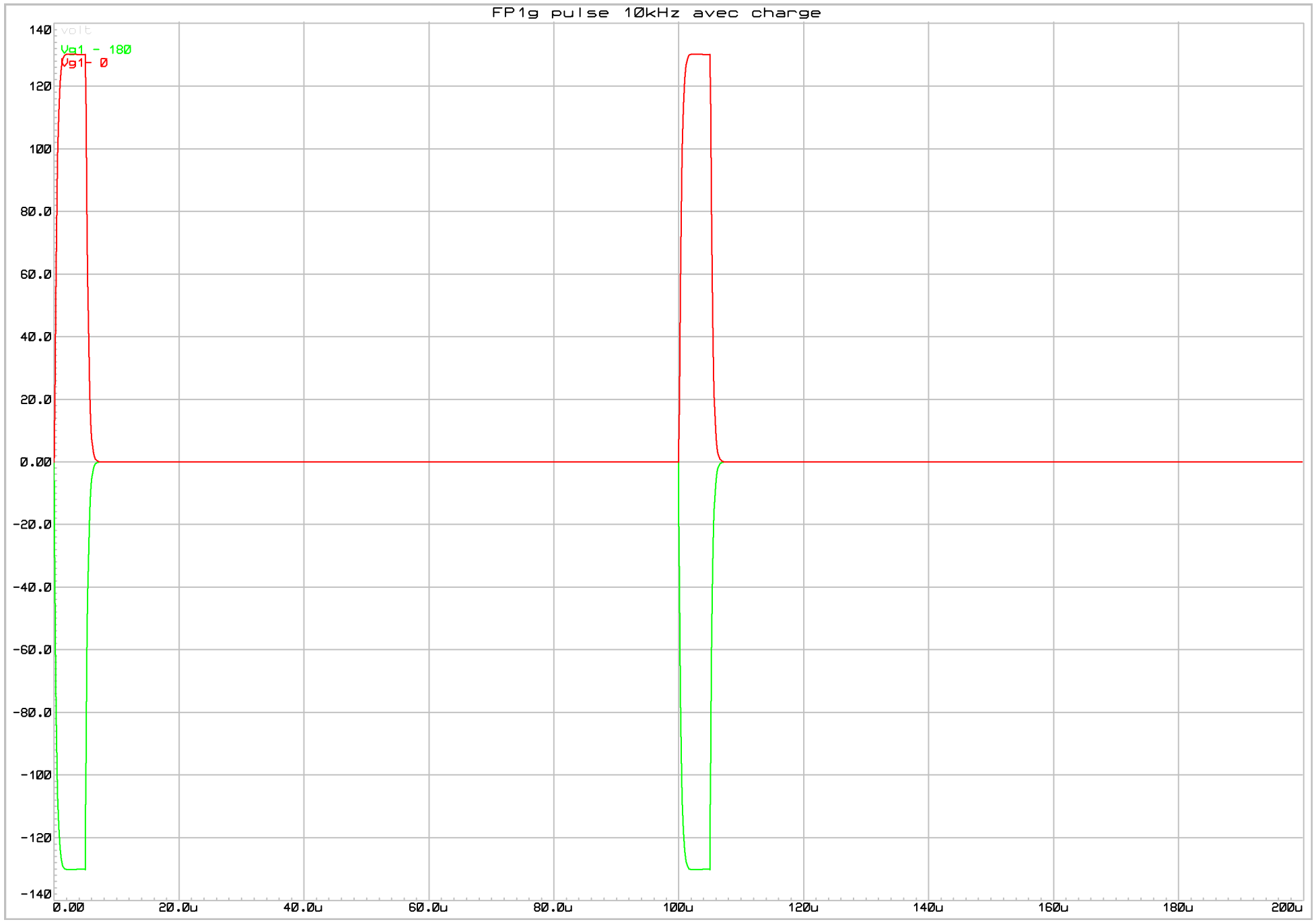

FP1g impulsion 1Hz avec charge
volt
Vg1 - 180
Vg1- 0
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
200m
400m
600m
800m
1.00
1.20
1.40
1.60
1.80
2.00

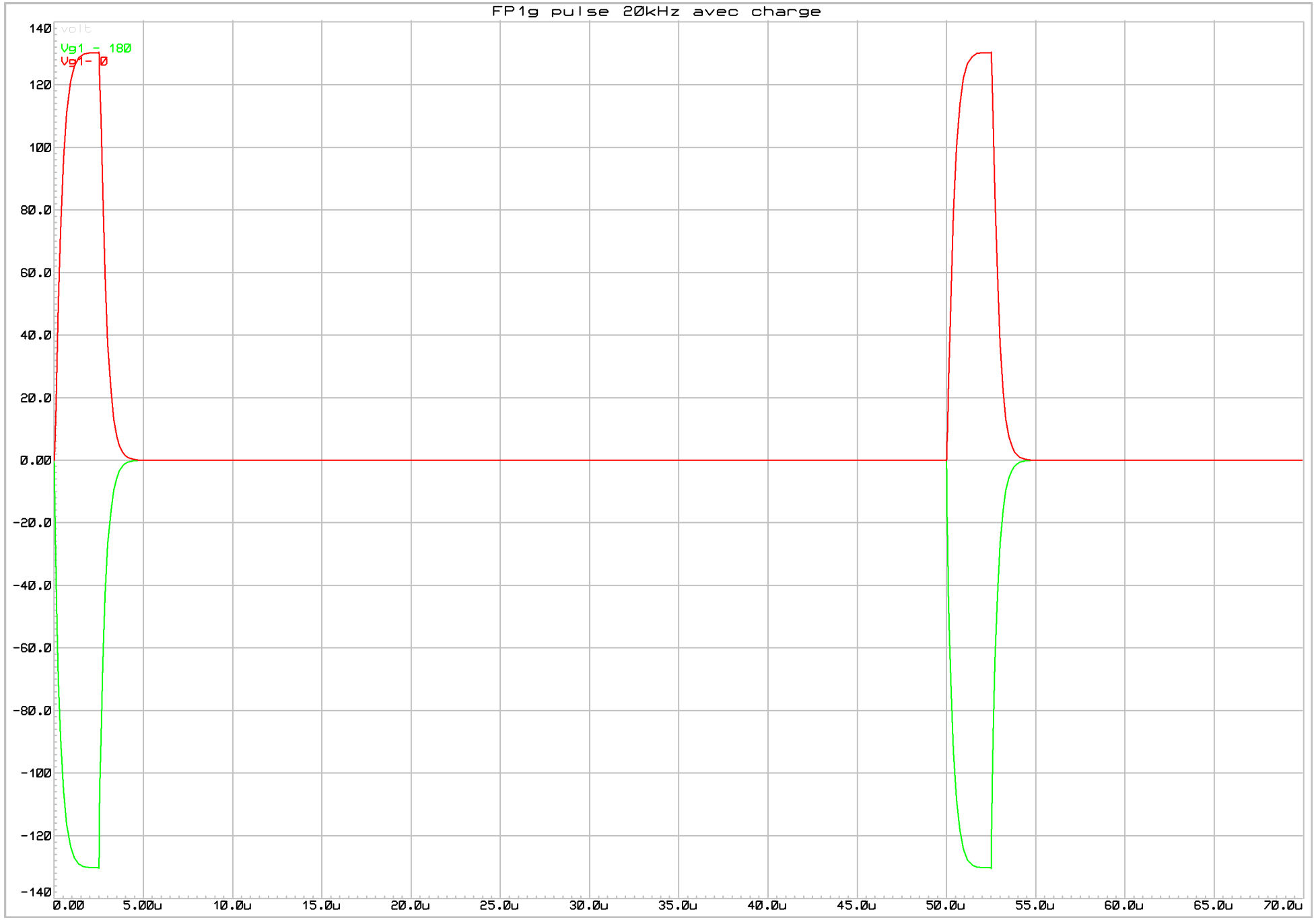

FP1g pulse 10Hz avec charge
volt
Vg1 - 180
Vg1- 0
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
20.0m
40.0m
60.0m
80.0m
100m
120m
140m
160m
180m
200m

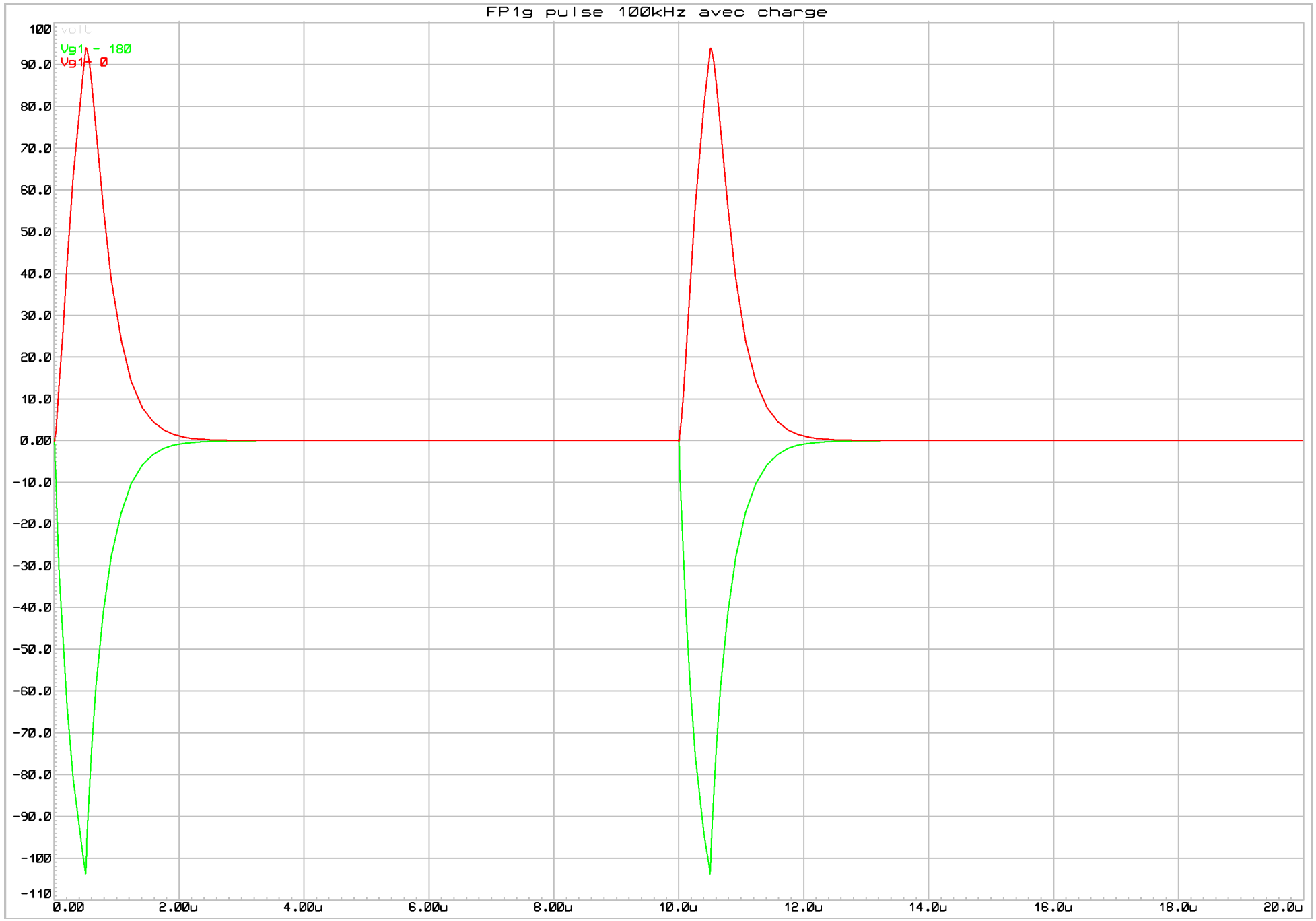

FP1g pulse 20Hz avec charge
volt
Vg1 - 180
Vg1 - 0
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
10.0m
20.0m
30.0m
40.0m
50.0m
60.0m
70.0m
80.0m
90.0m
100m

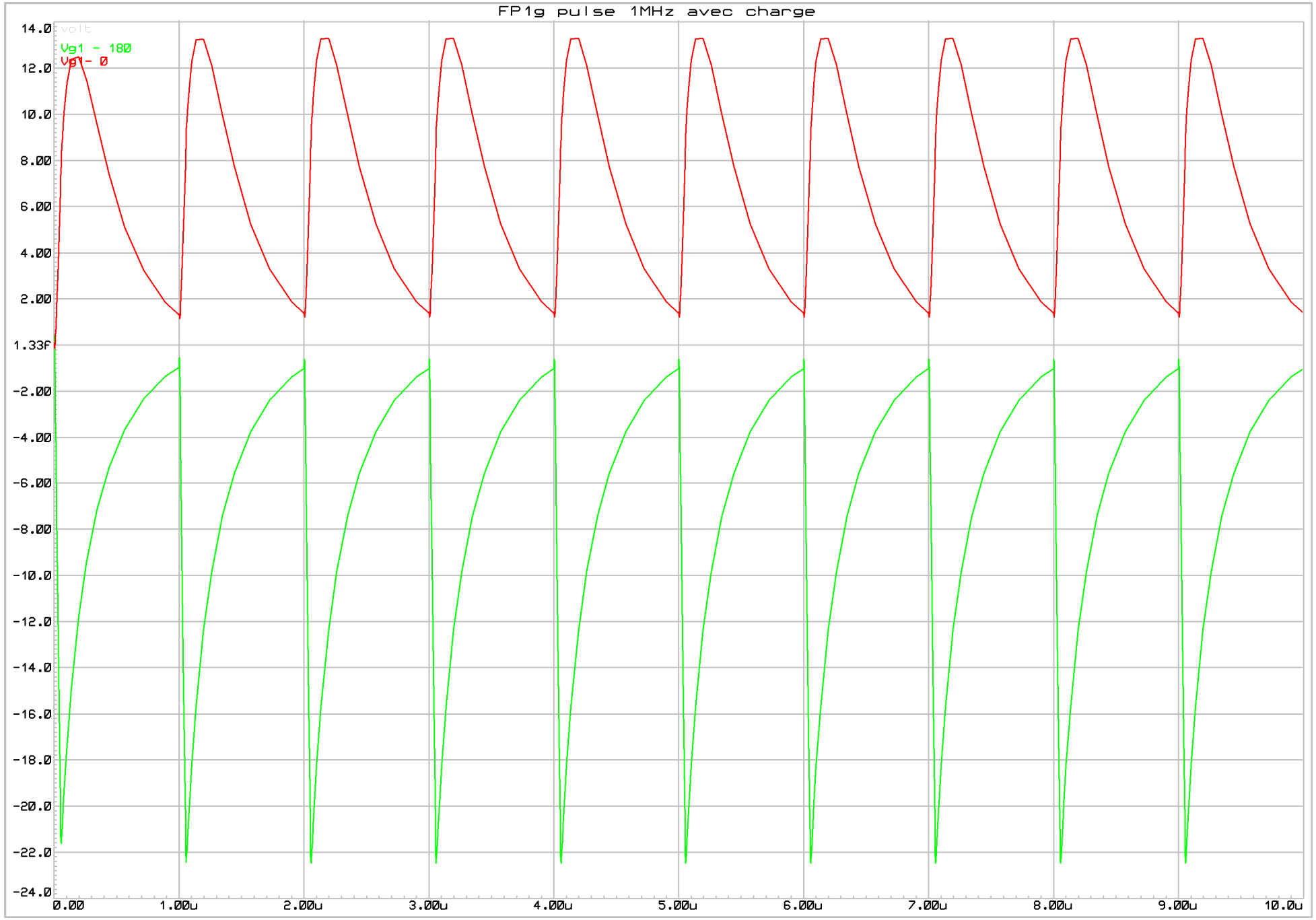

FP1g pulse 100Hz avec charge
volt
Vg1 - 180
Vg1 - 0
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
2.00m
4.00m
6.00m
8.00m
10.0m
12.0m
14.0m
16.0m
18.0m
20.0m

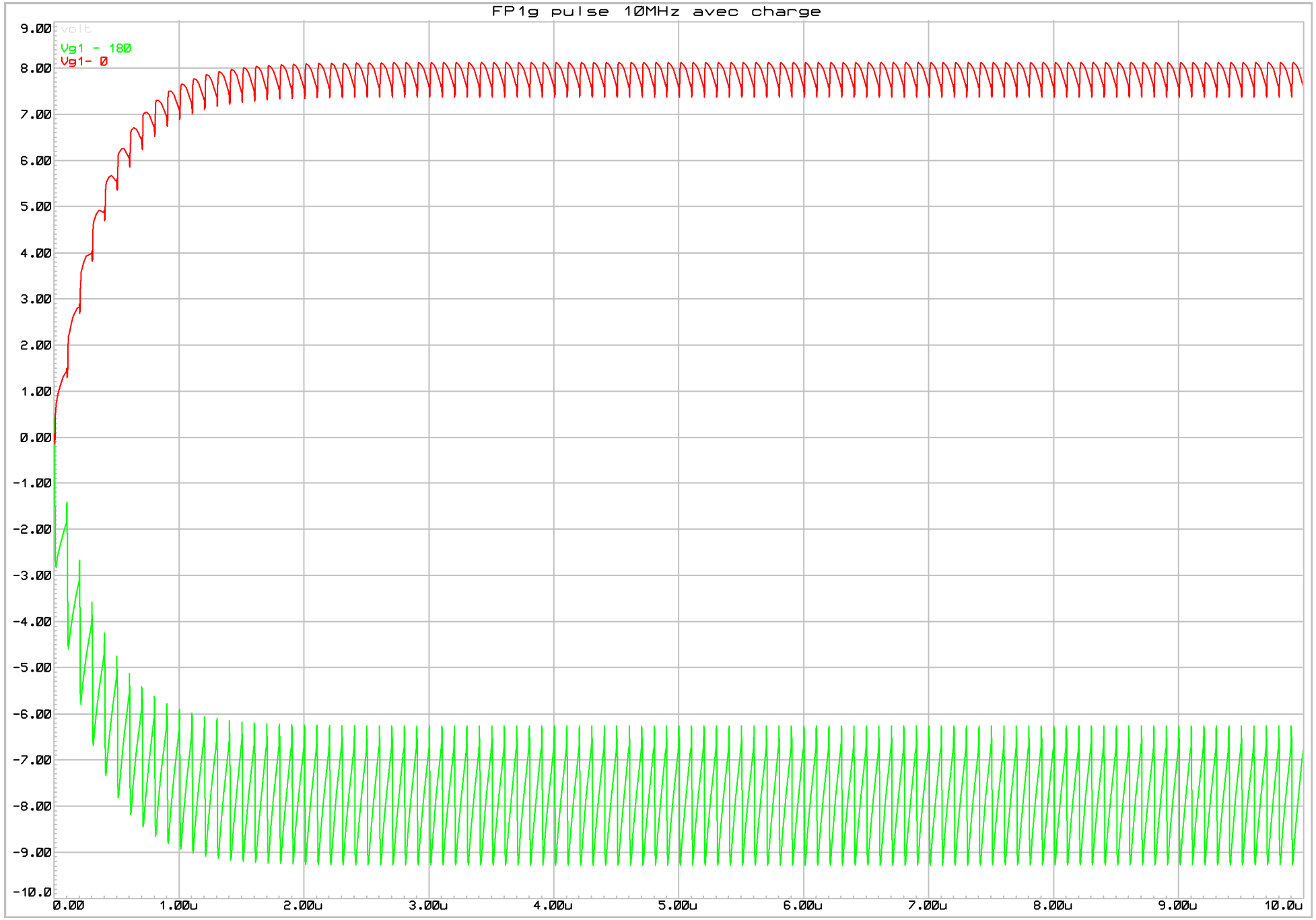

FP1g pulse 1000Hz avec charge
volt
Vg1 - 180
Vg1 - 0
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
200u
400u
600u
800u
1.00m
1.20m
1.40m
1.60m
1.80m
2.00m


FP1g pulse 10kHz avec charge
volt
Vg1 - 180
Vg1 - 0
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
20.0u
40.0u
60.0u
80.0u
100u
120u
140u
160u
180u
200u


FP1g pulse 20kHz avec charge
volt
Vg1 - 180
Vg1 - 0
140
120
100
80.0
60.0
40.0
20.0
0.00
-20.0
-40.0
-60.0
-80.0
-100
-120
-140
0.00
5.00u
10.0u
15.0u
20.0u
25.0u
30.0u
35.0u
40.0u
45.0u
50.0u
55.0u
60.0u
65.0u
70.0u


FP1g pulse 100kHz avec charge
volt
Vg1 - 180
Vg1 - 0
100
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100
-110
0.00
2.00u
4.00u
6.00u
8.00u
10.0u
12.0u
14.0u
16.0u
18.0u
20.0u


FP1g pulse 1MHz avec charge
volt
Vg1 - 180
Vg1 - 0
14.0
12.0
10.0
8.00
6.00
4.00
2.00
1.33f
-2.00
-4.00
-6.00
-8.00
-10.0
-12.0
-14.0
-16.0
-18.0
-20.0
-22.0
-24.0
0.00
1.00u
2.00u
3.00u
4.00u
5.00u
6.00u
7.00u
8.00u
9.00u
10.0u


FP1g pulse 10MHz avec charge
volt
Vg1 - 180
Vg1- 0
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
-4.00
-5.00
-6.00
-7.00
-8.00
-9.00
-10.0
0.00
1.00u
2.00u
3.00u
4.00u
5.00u
6.00u
7.00u
8.00u
9.00u
10.0u