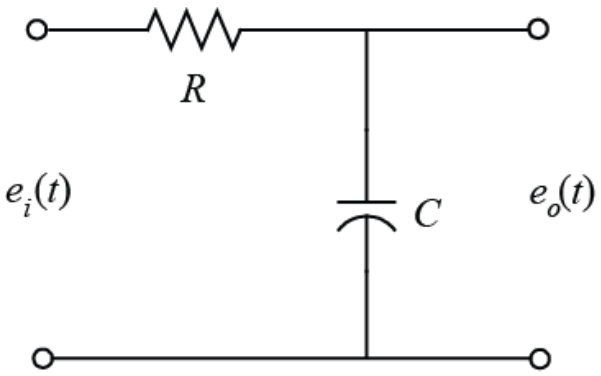
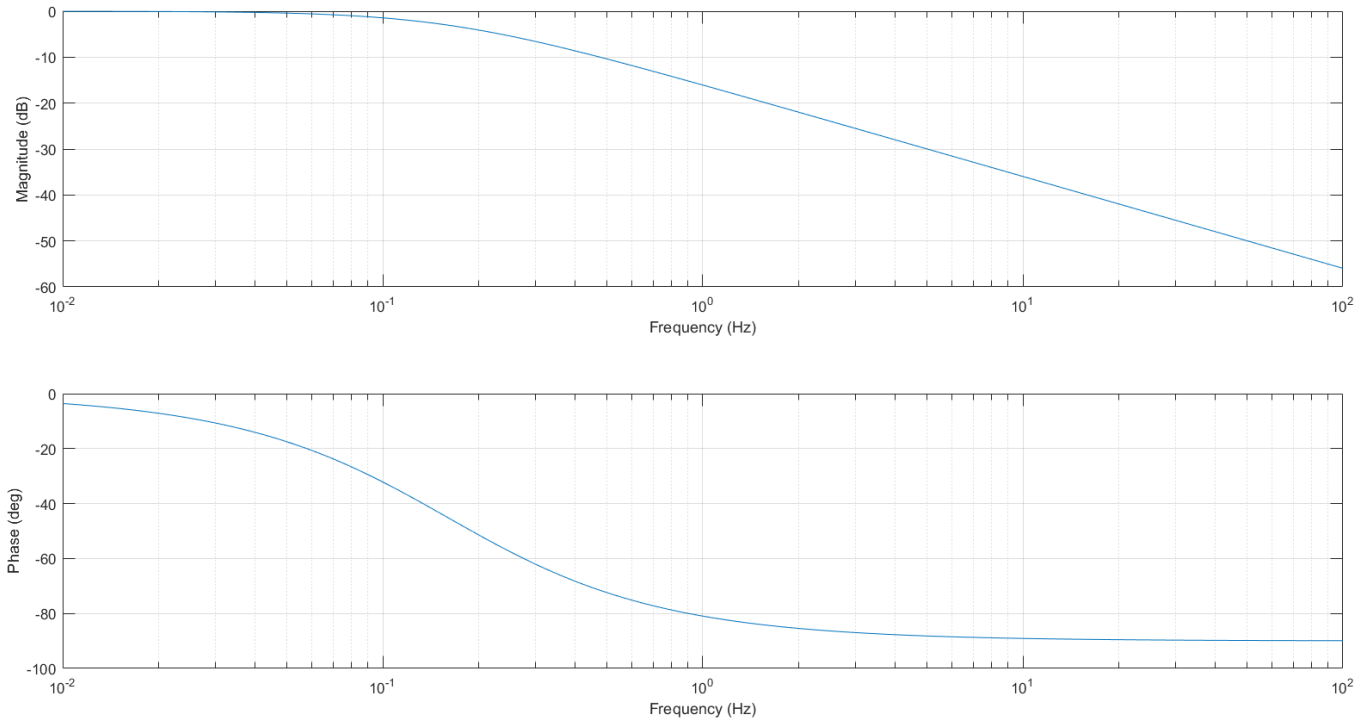
Test 1

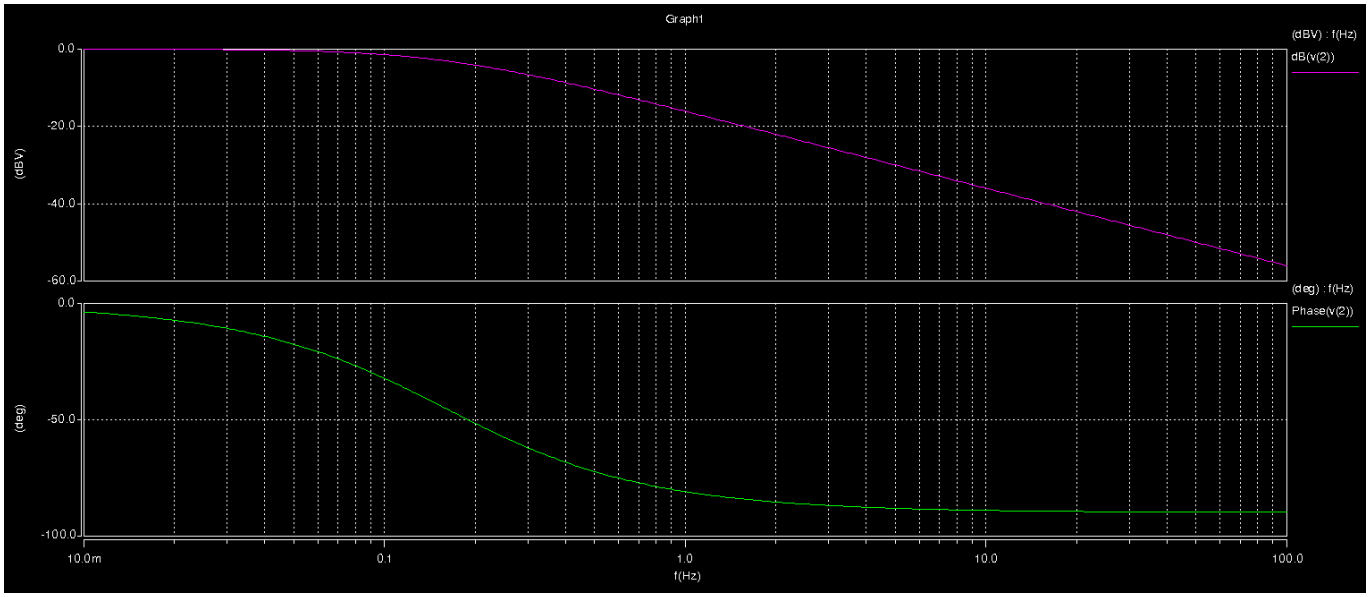


Netlist	
MATLAB	**HSPICE**
***Test 1 Vin 1 0 1 R1 1 2 10k C1 2 0 100u . 0.01 100 1 2	***Test 1 Vin 1 0 ac=1 R1 1 2 10k C1 2 0 100u .ac dec 100 0.01 100 .end

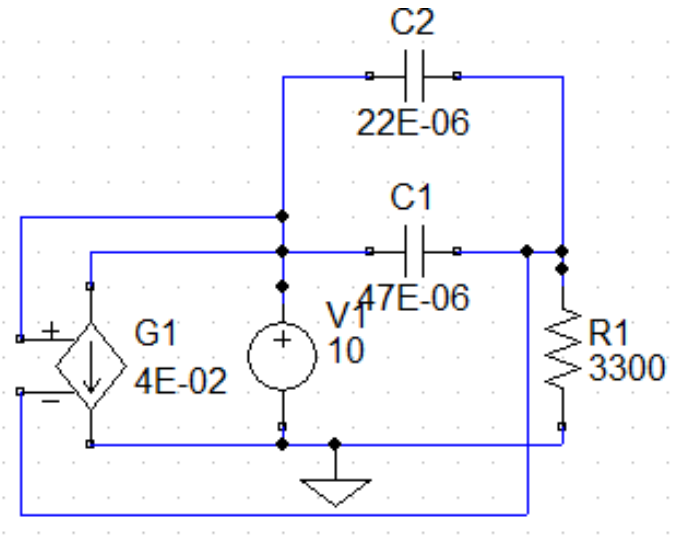
MATLAB Plot Test 1



HSPICE Plot for Test 1

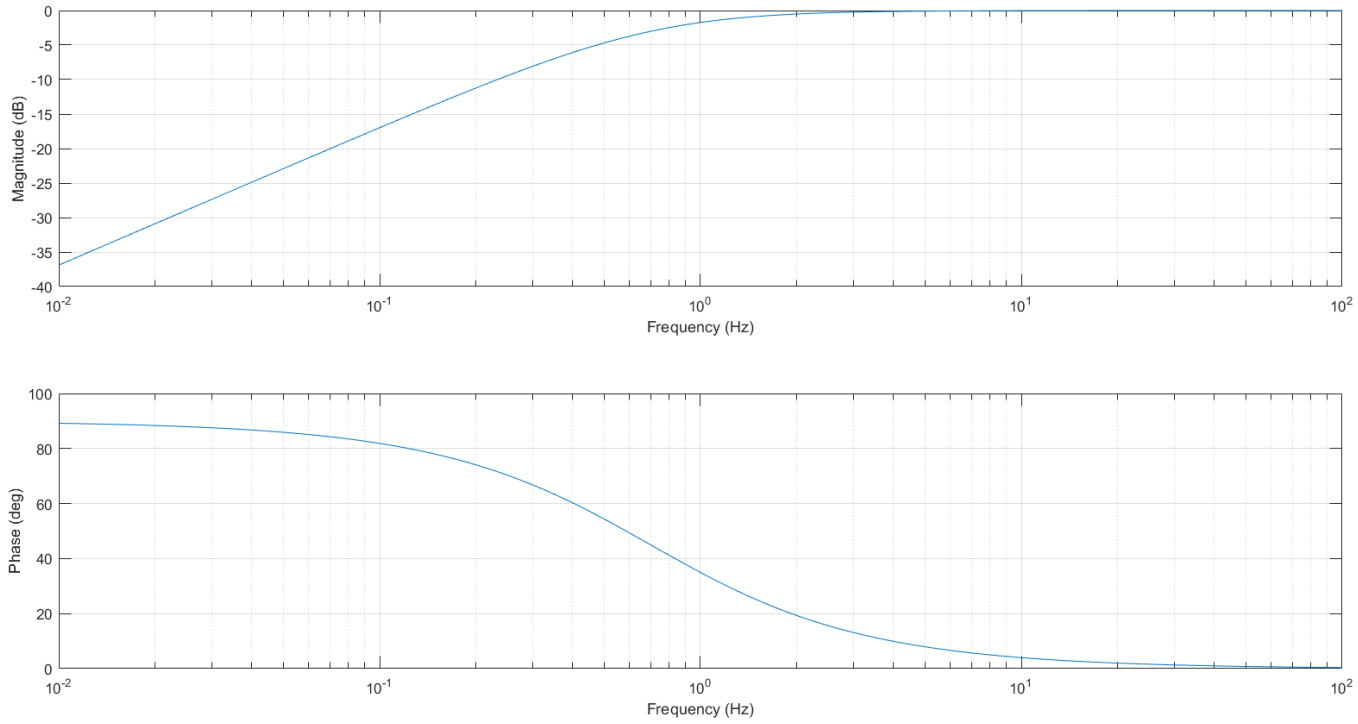


Test 2

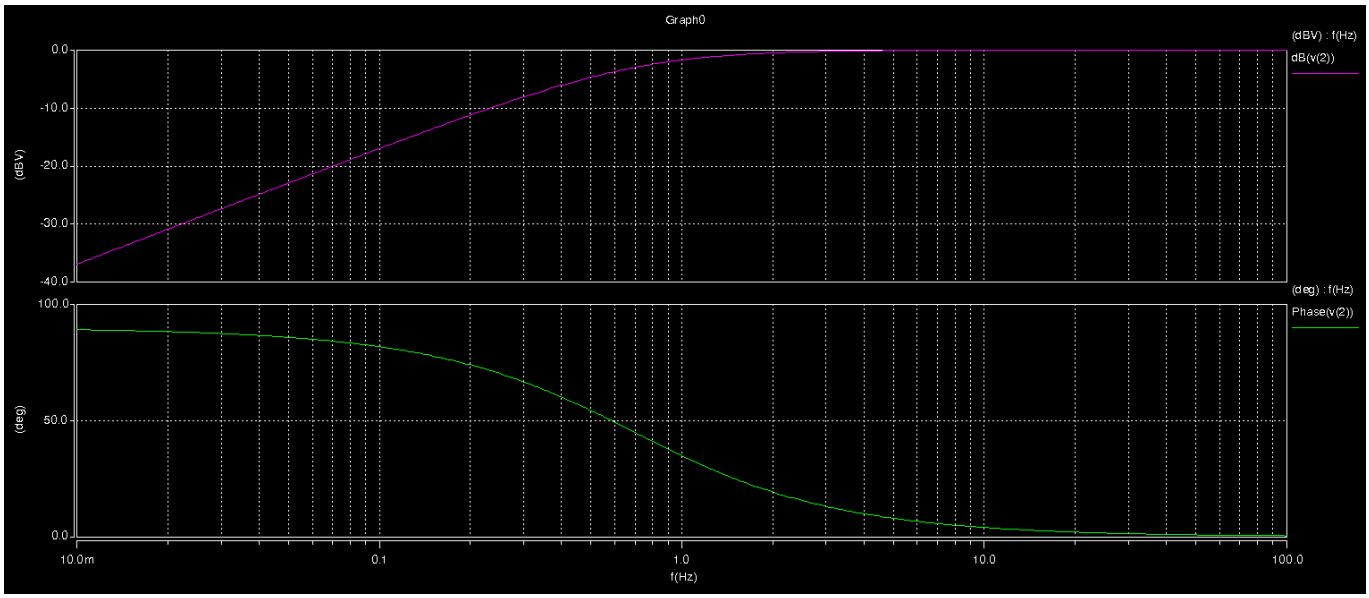


Netlist					
MATLAB					
***Test 2					
V1	1	0	1		
C1	1	2	47u		
C2	1	2	22u		
R1	2	0	3300		
G1	1	0	1	2	0.04
.	100	0.01	1	2	
HSPICE					
***Test 2					
V1	1	0	ac=1		
C1	1	2	47u		
C2	1	2	22u		
R1	2	0	3300		
G1	1	0	1	2	0.04
.ac	dec	100	0.01	100	
.end					

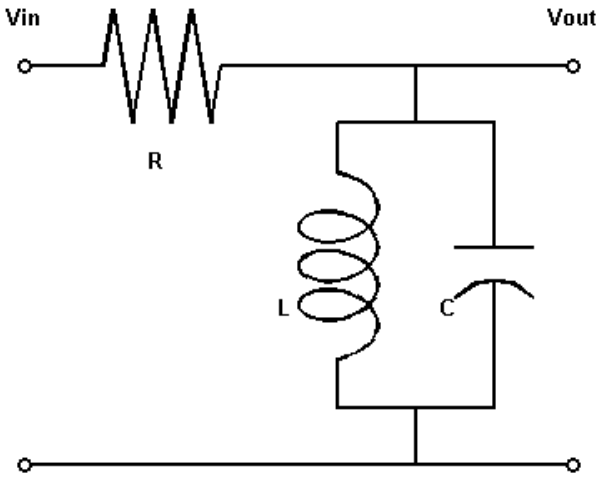
MATLAB Plot for Test 2



HSPICE Plot for Test 2

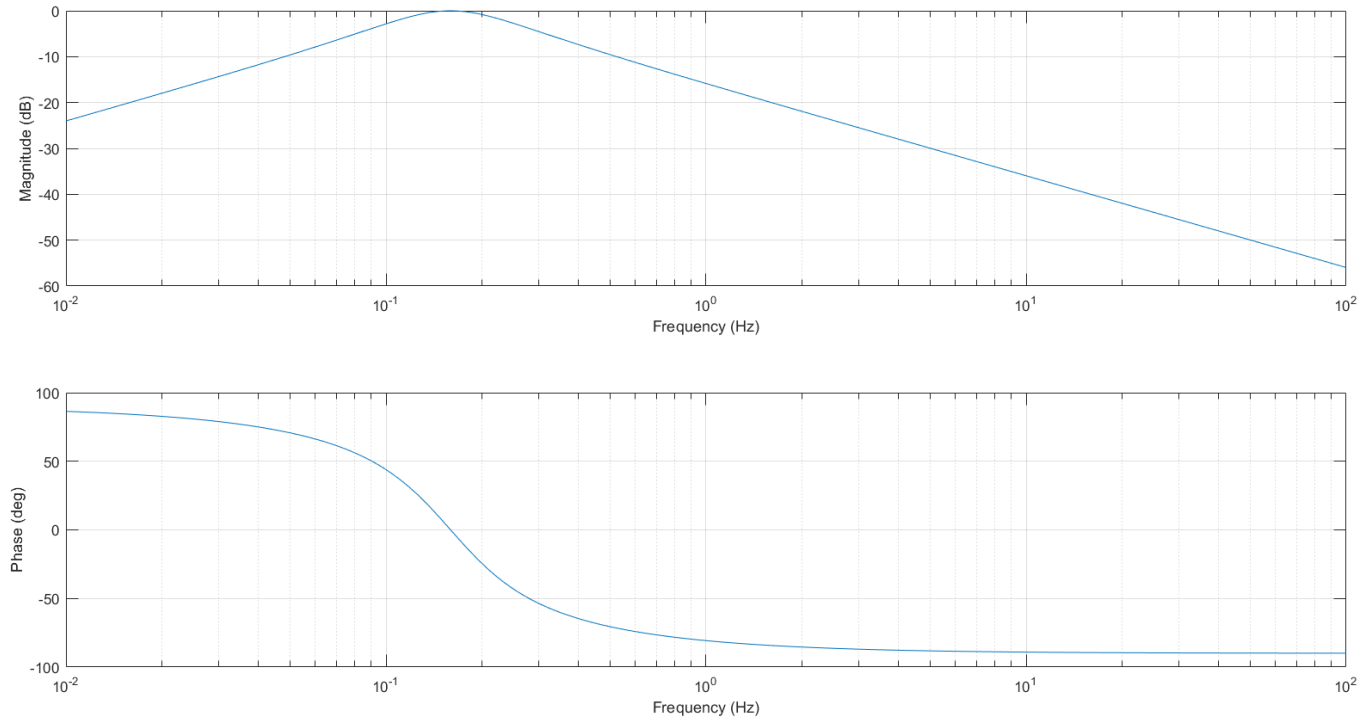


Test 3

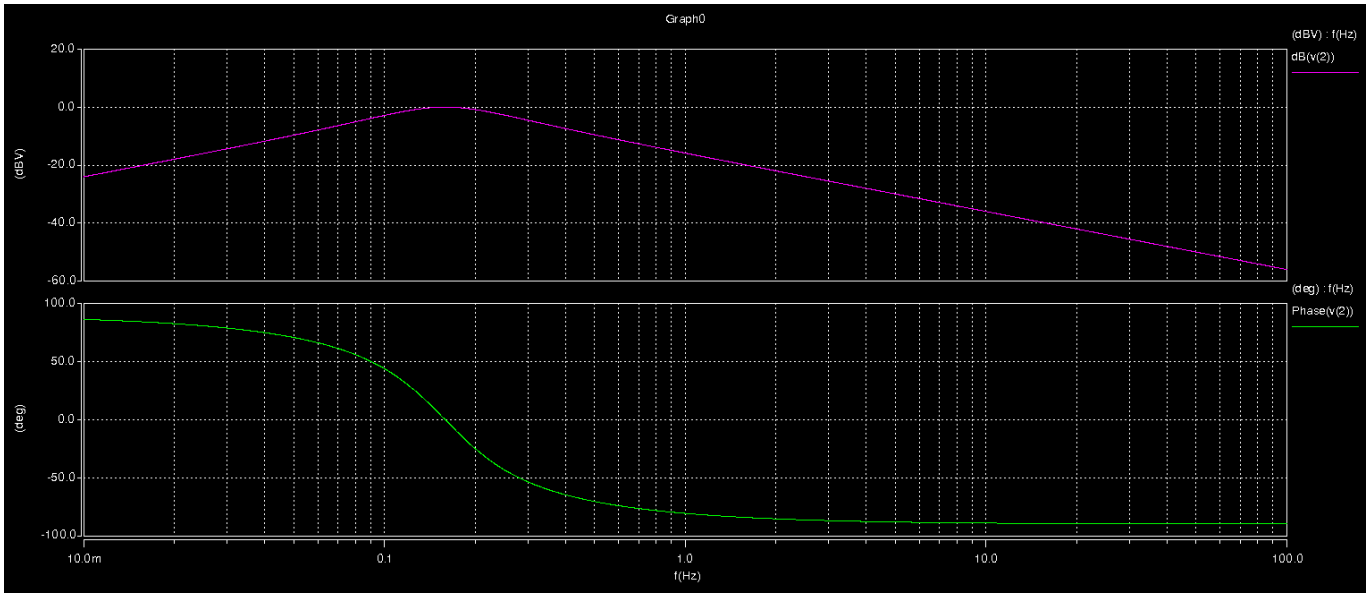


Netlist				
MATLAB				
***Test 3				
Vin	1	0	1	
R1	1	2	1	
L1	2	0	1	
C1	2	0	1	
.	0.01	100	1	2
HSPICE				
***Test 3				
Vin	1	0	ac=1	
R1	1	2	1	
L1	2	0	1	
C1	2	0	1	
.ac	dec	1000	0.01	100
.end				

MATLAB Plot for Test 3

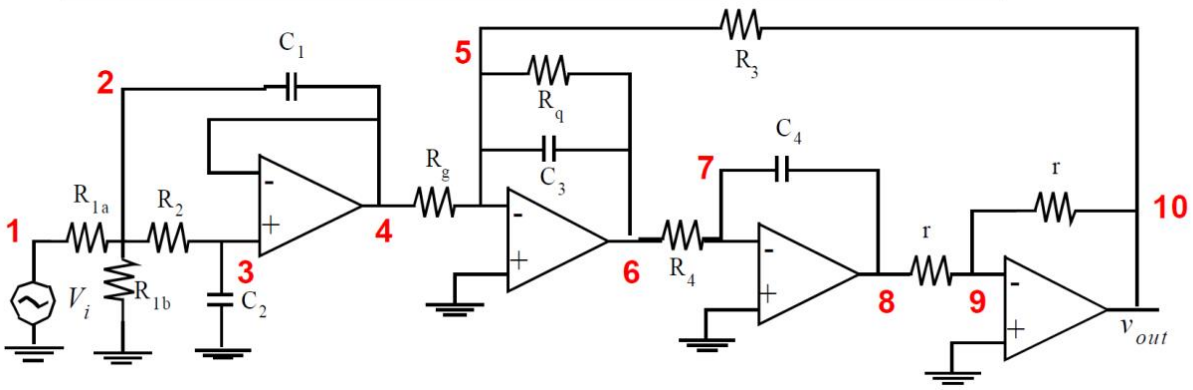


HSPICE Plot for Test 3



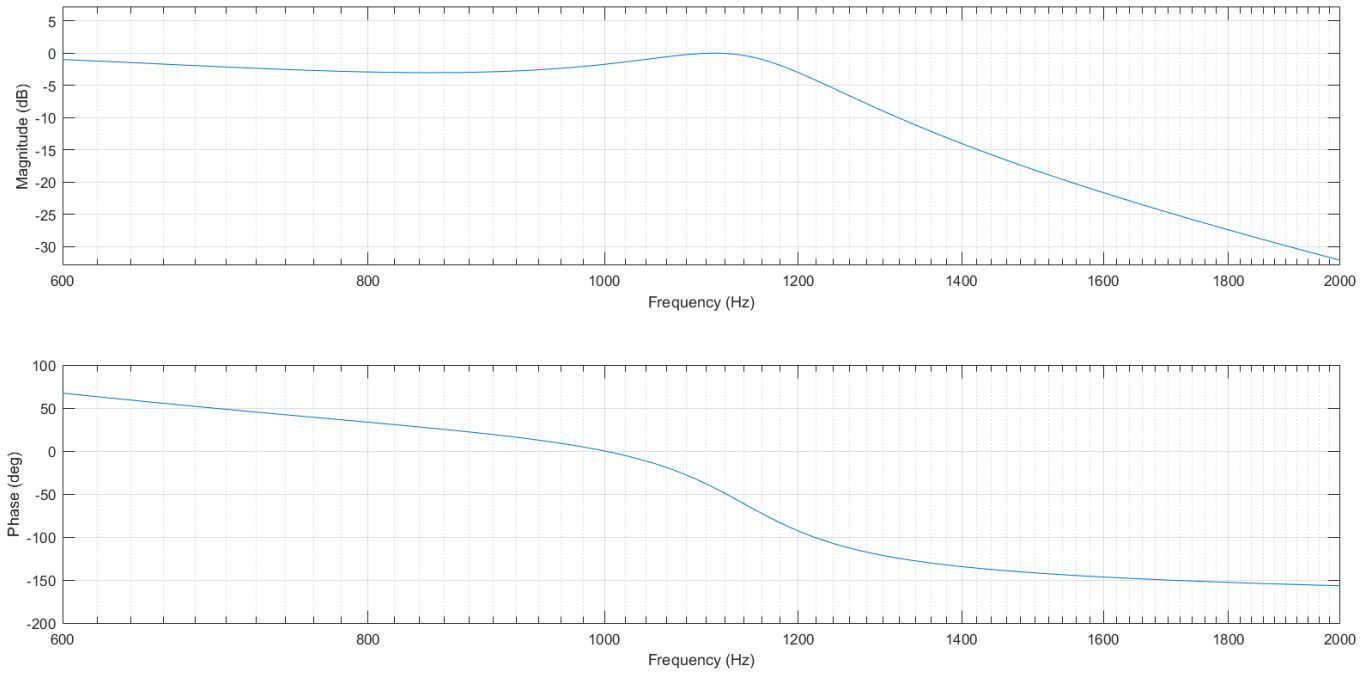
Test 4

R_{1a}= 9,606Ω	C_3=C_4=15nF	$V_i = 1V$
R_{1b}= 23,280Ω	R_3=R_4=9,304Ω	
R_2=6.8KΩ	R_q=52,107Ω	Gain of all OpAmps = 50,000
C_1=94.9nF	R_g=9,304Ω	
C_2=20.5nF	r=20KΩ	

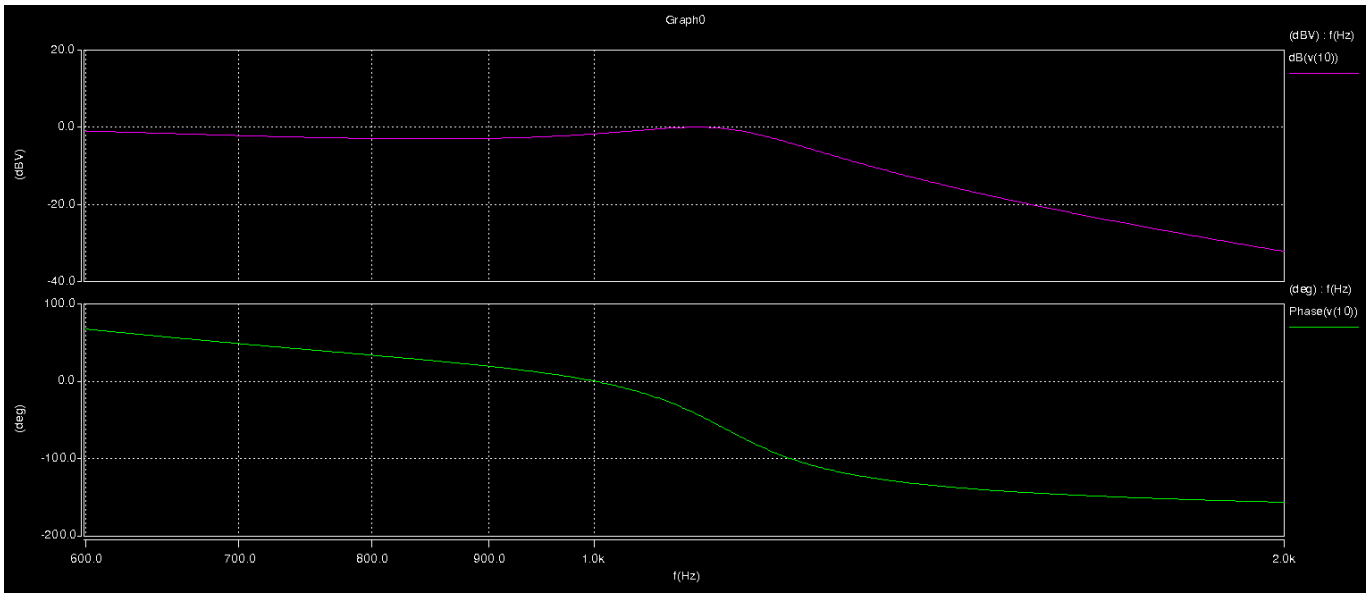


Netlist	
MATLAB	**HSPICE**
***Test 4 Vi 1 0 1 R1a 1 2 9606 R1b 2 0 23280 R2 2 3 6.8k Rg 4 5 9304 Rq 5 6 52107 R3 5 10 9304 R4 6 7 9304 r910 8 9 20k r89 9 10 20k C1 2 4 94.9n C2 3 0 20.5n C3 5 6 15n C4 7 8 15n Ro11 3 4 10meg Ro12 11 4 10 Eo1 11 0 3 4 50k Ro21 0 5 10meg Ro22 12 6 10 Eo2 12 0 0 5 50k Ro31 0 7 10meg Ro32 13 8 10 Eo3 13 0 0 7 50k Ro41 0 9 10meg Ro42 14 10 10 Eo4 14 0 0 9 50k . 600 2k 1 10	***Test 4 Vi 1 0 ac=1 R1a 1 2 9606 R1b 2 0 23280 R2 2 3 6.8k Rg 4 5 9304 Rq 5 6 52107 R3 5 10 9304 R4 6 7 9304 r910 8 9 20k r89 9 10 20k C1 2 4 94.9n C2 3 0 20.5n C3 5 6 15n C4 7 8 15n Ro11 3 4 10meg Ro12 11 4 10 Eo1 11 0 3 4 50k Ro21 0 5 10meg Ro22 12 6 10 Eo2 12 0 0 5 50k Ro31 0 7 10meg Ro32 13 8 10 Eo3 13 0 0 7 50k Ro41 0 9 10meg Ro42 14 10 10 Eo4 14 0 0 9 50k .ac dec 1000 600 2k .end

MATLAB Plot for Test 4



HSPICE Plot for Test 4



As you see there is no difference between the plots generated by custom MATLAB program and HSPICE, So the program works correctly.