x=1:10:1000

n=length(x)

for i=1:1:n

a(i)=1/(1+(2\*pi\*x(i)\*16000\*(1.0E-7)\*j));

end

y=abs(a)

subplot(2,1,1)

semilogx(x,y)

xlabel('Frequency')

ylabel('Gain')

title('Gain response')

grid on;

p=angle(a)

subplot(2,1,2)

semilogx(x,p)

xlabel('Frequency')

ylabel('Phase')

title('Phase response')

grid on;