```matlab
%%  1 multipath signal and 1 direct signal.
clear all,%close all,
fc = 533e6;
c = 3e8;
lamda = c/fc;
k = 2*pi/lamda;
d = 0.1;
x = d/2;
a0 = 1;
w = 2*pi*fc;
t = 0: 0.001e-9 : 10e-9;
f_s = 8e6;
t_0 = 1 / fc;
r_0 = t_0 / (2 * pi);
nfft = 256;
navg = 1024;

f = ((0:(nfft - 1)) / (nfft - 1) - 0.5) * f_s;
nsamps = navg * nfft;

delay = 0;
alpha = 0;
summ1 = (1+cos(k*x*cos(alpha)))*(cos(w*(t-delay)) + j*sin(w*(t-delay)));

delay = 10e-9;
alpha = pi/2;
summ2 = (1+cos(k*x*cos(alpha)))*(cos(w*(t-delay)) + j*sin(w*(t-delay)));

% figure, plot(t,real(summ1)) %,...
% figure, plot(t,real(summ2))
% figure, plot(t,real(summ3))
% figure, plot(t,real(summ4))
%             t,real(summ2),...
%             t,real(summ3),...
%             t,real(summ4),...
%             t,real(summ5))
%legend('sum1','sum2','sum3','sum4','sum5')
w = hann(nfft).';
cxy = zeros(1, nfft);
for j = 1: 39
    mm = (j - 1) * nfft + (1:nfft);
    fx = fft(summ1(mm) .* w);         % 2^15
    fy = fft(summ2(mm) .* w);
    cxy = cxy + fftshift(fx .* conj(fy));
```

```matlab
    if 1
        figure(1);
        plot(f, 10 * log10(abs(cxy)));
        xlabel('Frequency (Hz)');
        ylabel('Power (dB)');
        title('absolute value');

        figure(2);
        plot(f, angle(cxy) * r_0 * 1e12);
        xlabel('Frequency (Hz)');
        ylabel('Phase (ps)');
        title('angle');
    end
     pause(0.5)
end
```