```
function [xVec] = iq2if(IVec,QVec,Tl,fIF)
% IQ2IF : Convert baseband I and Q samples to intermediate frequency samples.
% Let xl(m*Tl) = I(m*Tl) + j*Q(m*Tl) be a discrete-time baseband
\% representation of a bandpass signal. This function converts xl(n) to a
% discrete-time bandpass signal x(n) = I(n*T)*cos(2*pi*fIF*n*T)-
% Q(n*T)*sin(2*pi*fIF*n*T) centered at the user-specified intermediate
% frequency fIF, where T = T1/2.
%
% INPUTS
%
% IVec----- N-by-1 vector of in-phase baseband samples.
% QVec----- N-by-1 vector of quadrature baseband samples.
% Tl----- Sampling interval of baseband samples (complex sampling
               interval), in seconds.
%
% fIF----- Intermediate frequency to which the baseband samples will
%
               be up-converted, in Hz.
%
% OUTPUTS
%
% xVec----- 2*N-by-1 vector of intermediate frequency samples with
               sampling interval T = T1/2.
 %
%
% References:
%
R = 2; % for iq2if. (Given)
IVecResampled = interp(IVec,R);
QVecResampled = interp(QVec,R);
T=T1/2;
n=(0:length(IVecResampled)-1)';
xVec = IVecResampled.*cos(2*pi*fIF*n*T)-QVecResampled.*sin(2*pi*fIF*n*T);
```

```
Not enough input arguments.
Error in iq2if (line 37)
IVecResampled = interp(IVec,R);
```