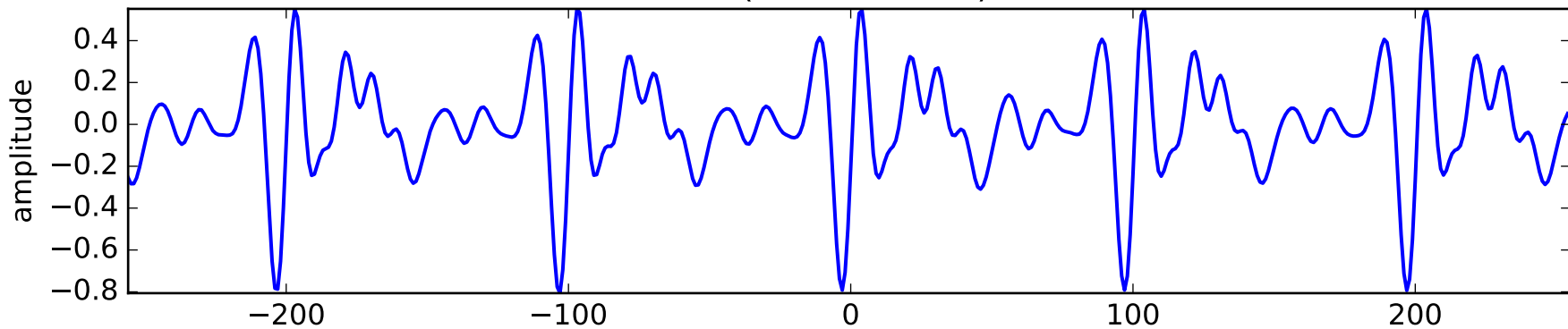
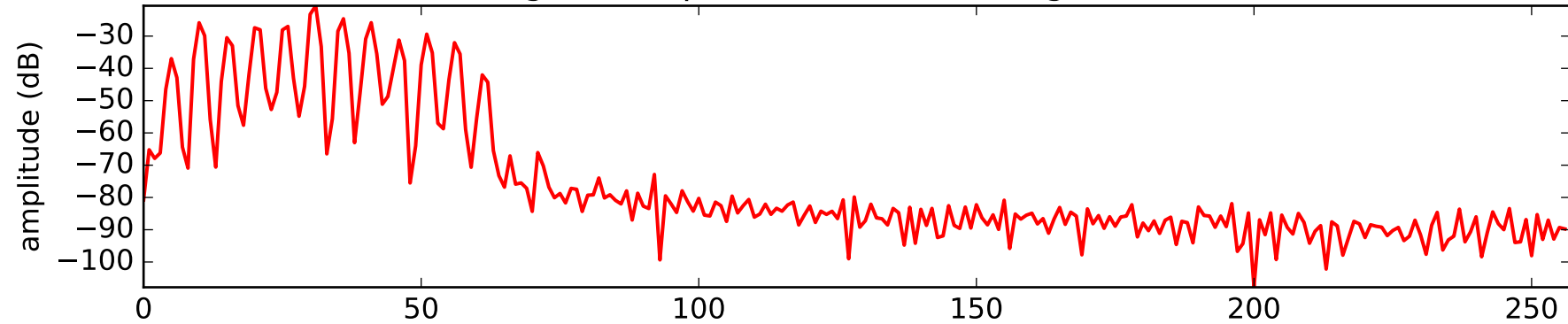


x (oboe-A4.wav)



magnitude spectrum: $mX = 20 \cdot \log_{10}(\text{abs}(X))$



phase spectrum: $pX = \text{unwrap}(\text{angle}(X))$

