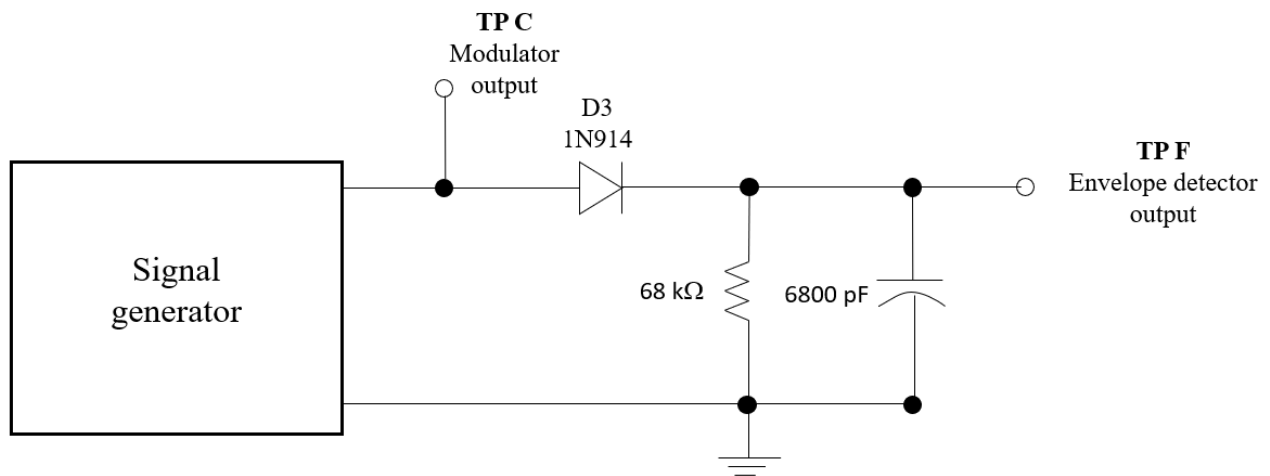


## EE160 Laboratory. Fall 2022

### Modification to Experiment 4

Starting this semester, in the envelope detector circuit (Figure 4.1b) the values of R15 and C9 are equal to 68 k $\Omega$  and 6800 pF respectively. These components will be available in the laboratory on Monday. Remove R16 and C10 from the envelope detector circuit in Figure 4.1b. Below is the revised circuit.



**Figure 4.1b:** Envelope detector

In addition, the MATLAB script that is referenced to in the lab manual has been modified and saved under the name "rcvalue.m". The file can be found in Canvas **Files > Matlab > Amplitude modulation** as well as in **Files > Laboratory > Matlab models**. The default values used in the script are  $f_c = 20$  kHz,  $A_c = 3$  V,  $f_m = 200$  Hz,  $\tau = RC = 0.4624$  ms, and modulation index  $a = 0.5$ . Use the script to obtain the figures requested in the lab manual. Below is the figure produced by the script with the default values.

