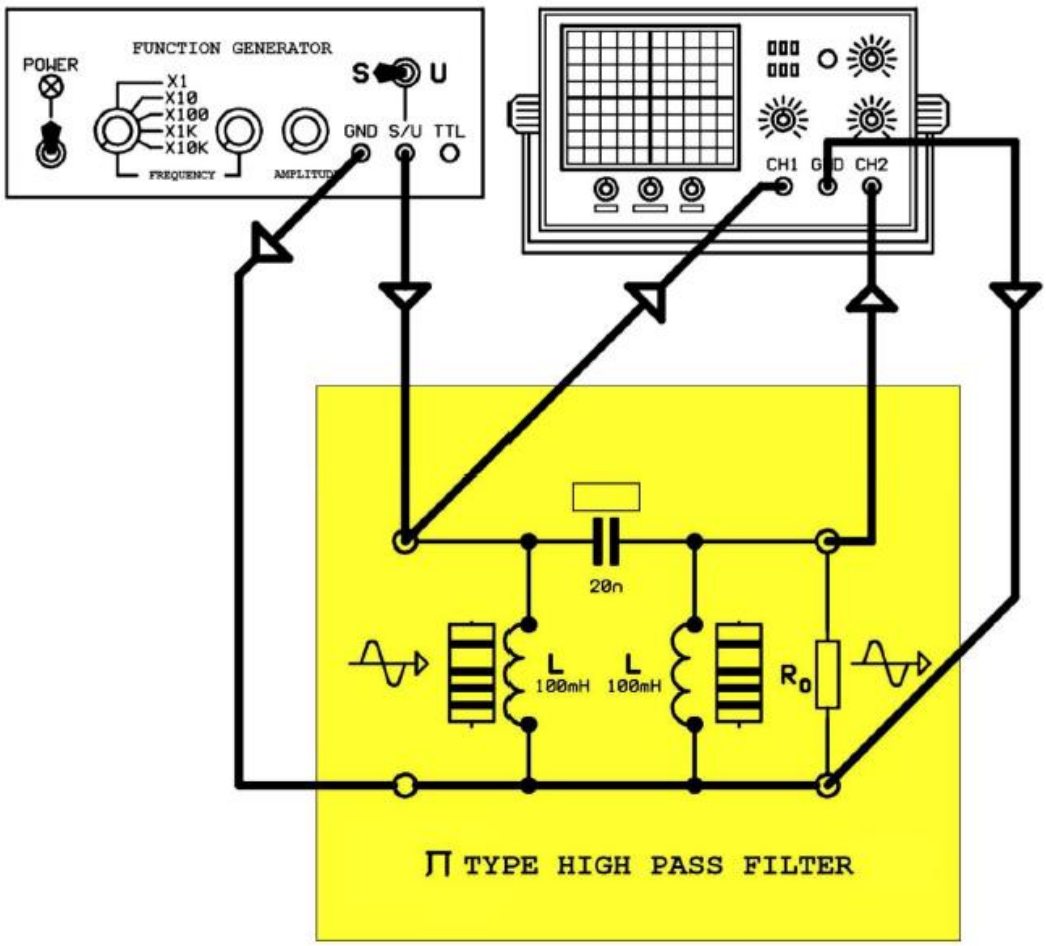
EXPERİMENT #10_2
EXAMINATION OF Π TYPE HIGH PASS FILTER

REQUIRED MATERIALS:

1. Function generator
2. Oscilloscope (two channels)
3. AC Voltmeter
4. Y-0016/03AC module
5. Connection cable

EXPERIMENT:

Adjust the output of function generator to sine peak to peak **Vpp=10 V** and the frequency to **1 KHz**. Plug the **Y-0016/03AC** module. Make the circuit connections as in Figure.



EXPERIMENT OBSERVATIONS

1. In the experiment **L=100mH**, **C=10nf**. Calculate the "**Ro**" resistance.

2. Calculate the cut-off frequency of circuit.

3. What does cut-off frequency denote?

4. Apply energy to the circuit. Increase the input signal frequency **1 KHz** each step until **10 KHz**. Note the output signal amplitude to a scale in each step. Especially, measure the output signal amplitude at cut-off frequency.

Note: In low frequencies, the circuit deforms the input signal while resisting. This is a normal situation in "Π" type high pass filters.

FREQUENCY (KHz)	V_O (V_{PP})
1,0	
2,0	
3,0	
4,0	
5,0	

FREQUENCY (KHz)	V_O (V_{PP})
6,0	
7,0	
8,0	
9,0	
10,0	

5. Compare the calculated cut-off frequency and the value you measured. If there is a difference, explain why?

6. What can be said about the change in scale?