**Circuit Report**

Circuit 5 Band Pass circuit 4 (Infinite Gain Multiple Feedback Active Filter)

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A diagram of a circuit

Description automatically generated

A diagram of a power line

Description automatically generated

Calculations:

R2(Brown Black Orange):10x103 ohms

R1(Green Blue Black Brown):5.6x103 ohms

C=10-9 F

Vin= 1 volt

-These components were chosen so the center frequency would be between (1 kHz and 100 kHz)

FC=21268 Hz

Vout/Vin=-1

-Assumed Frequency low and Frequency high as Quality Factor is not given.

FL=4500 Hz

FH=40000Hz

Alternating Current Circuit

A diagram of a circuit

Description automatically generated

A screenshot of a computer

Description automatically generated

A screen shot of a graph

Description automatically generated

\*Max volt at Fc=21268

A screenshot of a computer

Description automatically generatedSin Fc Circuit

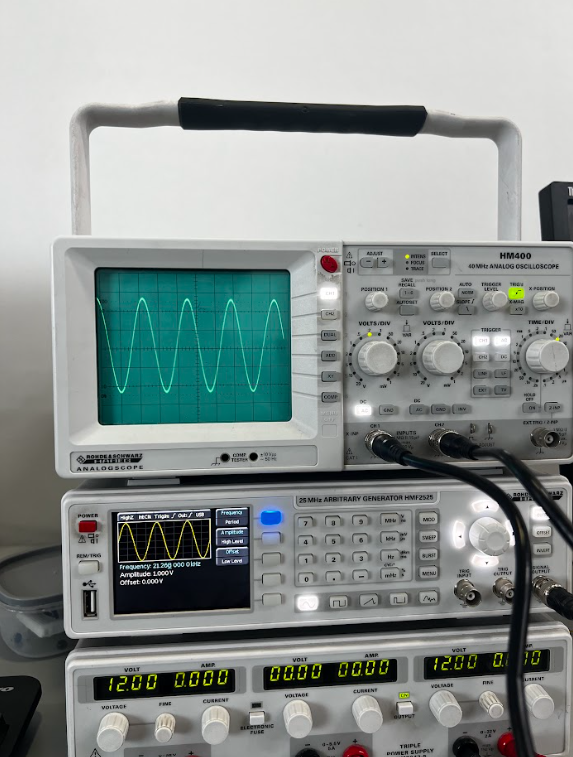
A screenshot of a computer

Description automatically generated

A screen shot of a computer

Description automatically generated

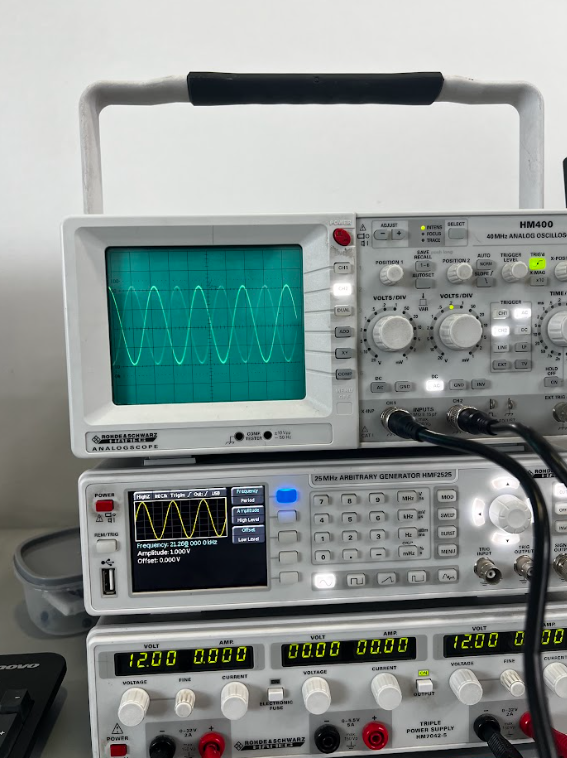
Gain: almost -0.5

Channel1:

Input:

Vin= 1 volt

FC=21268 Hz

Channel 2:

Output:

Vin= 1 volt

Gain=-1

FC=21268 Hz

A diagram of a circuit

Description automatically generatedSin low frequency:

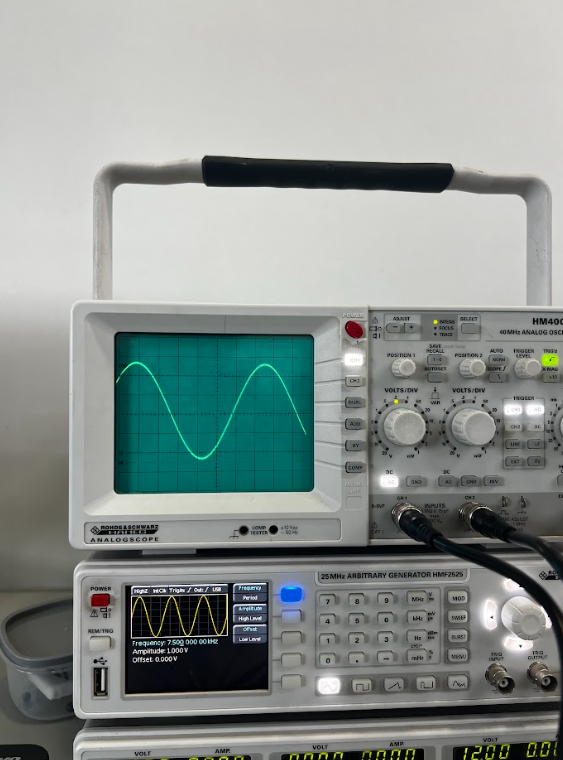
A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Gain: almost -1

Channel1:

Input:

Vin= 1 volt

FL=4500 Hz

A white electronic device with a screen and buttons

Description automatically generatedChannel2:

Output:

Vin= 1 volt

Vout/Vin=-1

FL=4500 Hz

Sin High Frequency:

A diagram of a circuit

Description automatically generated

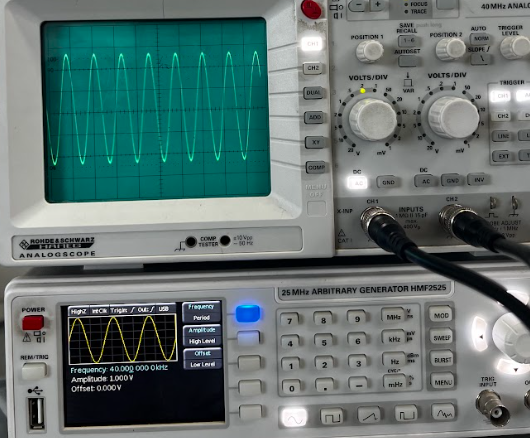
A screenshot of a computer

Description automatically generated

A screen shot of a computer

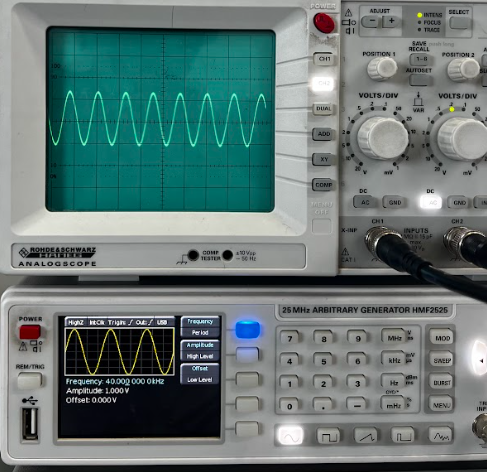
Description automatically generated

Gain: almost -0.5

Channel 1:

Vin= 1 volt

FH=40000Hz

Channel 2:

Vin= 1 volt

Vout/Vin=-0.5

FH=40000Hz

Hardware:

A circuit board with wires

Description automatically generated