Prelab 2

Jaiden Gann

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## Part 1:inverting op-amp

Diagram

Description automatically generated

**Figure 1.** Inverting op-amp circuit diagram

Chart

Description automatically generated

**Figure 2.** Input and output waveforms for Figure 1

**Table 1.** Simulation results for inverting op-amp

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| VINpp(V) | RIN (kΩ) | RF (kΩ) | VOUTpp (V) O-Scope | Gain (v/V) | VOUTrms (V) DMM |
| 2 | 1 | 0.5 | 1.992 | 0.5 | 0.354 |
| 1 | 1.993 | 1 | 0.707 |
| 2 | 1.993 | 2.079 | 1.47 |
| 3 | 1.992 | 2.26 | 1.60 |
| 4 | 1.991 | 2.51 | 1.78 |

## Part 2:non-inverting op-amp

Diagram, schematic

Description automatically generated

**Figure 3**. Non-inverting op-amp circuit diagram

Chart

Description automatically generated

**Figure 4.** Input and output waveforms for Figure 3

**Table 2.** Simulation results for non-inverting op-amp

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| VINpp(V) | RIN (kΩ) | RF (kΩ) | VOUTpp (V) O-Scope | Gain (v/V) | VOUTrms (V) DMM |
| 2 | 1 | 0.5 | 1.991 | 0.5 | 0.354 |
| 1 | 1.990 | 1 | 0.707 |
| 2 | 1.990 | 2.12 | 1.50 |
| 3 | 1.993 | 2.33 | 1.63 |
| 4 | 1.989 | 2.51 | 1.78 |

The numbers I got for VOUTpp seem wrong to me for both non-inverting and inverting and am not sure I measured it correctly.