
HACK14

Analog Function Generator



General Description

The HACK14 analog function generator is a versatile tool that provides a frequency range of 20Hz to 20kHz, accompanied by four distinct waveforms. Additionally, this function generator boasts an adjustable duty cycle, enhancing its functionality for a variety of applications.

Key Features

- Can generate four standard waveforms
 1. Sine wave
 2. Square wave (with variable duty cycle)
 3. Triangular wave
 4. Saw-tooth wave
- Amplitude variation from 0V to 10V
- Wide range of frequency variation from 20Hz to 20kHz
- Variable duty cycle for square wave from 1% to 99%
- Can drive a 50 Ω minimum load at a 10 V amplitude

Specifications

Waveform Characteristics

| | Frequency range | Duty cycle |
|------------------|-----------------|------------|
| Sine waves | 20Hz - 36kHz | - |
| Square waves | 16Hz - 375Hz | 1% - 99% |
| | 375Hz - 1.5kHz | 2% - 98% |
| | 1.5kHz - 2.5kHz | 3% - 97% |
| | 2.5kHz - 28kHz | 6% - 94% |
| Triangular waves | 16Hz - 28kHz | - |
| Saw-tooth waves | 7Hz - 20kHz | - |

Output Characteristics

| | |
|---------------------|-------------|
| Output amplitude | 0V - 10V |
| Min. load impedance | 50 Ω |

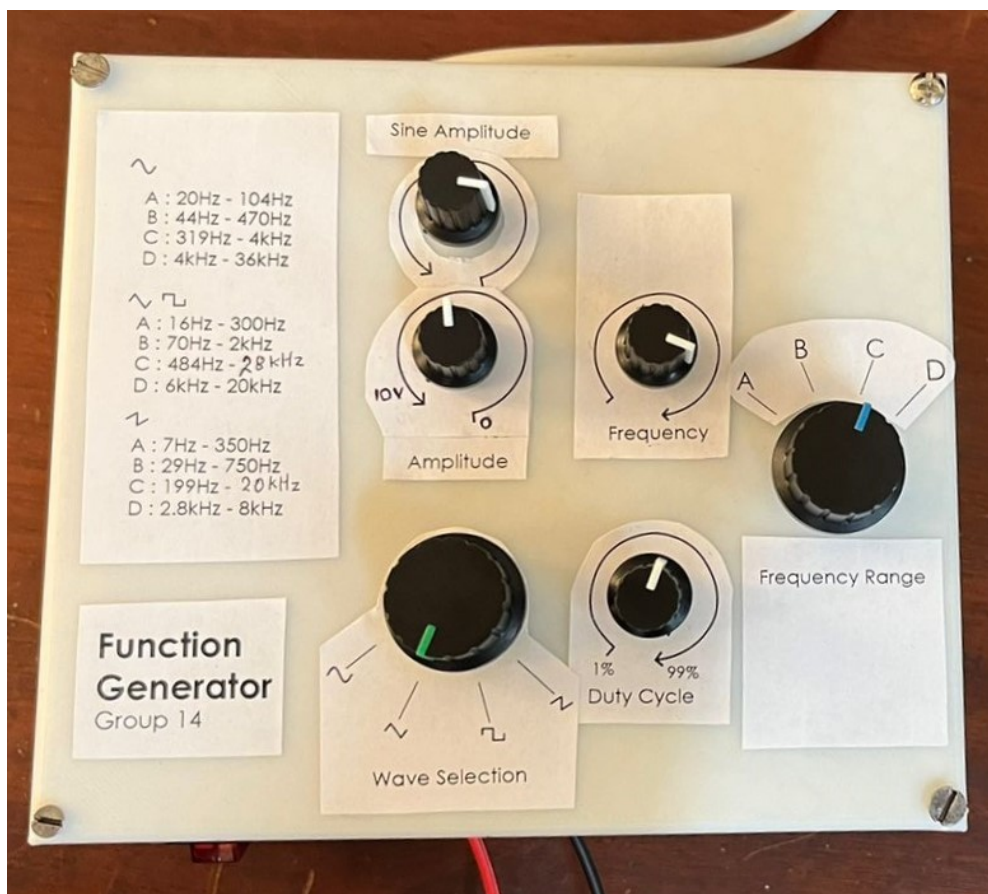
Power Source

| | |
|--------|----------------|
| Supply | 220 - 240 V AC |
|--------|----------------|

Physical Characteristics

| | |
|-------------------------------------|----------------|
| Dimensions (Length, Width, Height) | 16 x 14 x 8 cm |
| Weight | 2.5 kg |

User Interface



- The frequency range can be selected by the **Frequency Range** knob and the frequency can be varied within that range using the **Frequency** knob.
- The **Amplitude** knob can vary the amplitude for any waveform.
- If the sine wave saturates or attenuates, the **Sine Amplitude** knob can be used to adjust the amplitude before using the common amplitude knob.

Frequency Range Knob

| | | |
|-----------------------------|----|---------------|
| Sine wave | A: | 20Hz - 104Hz |
| | B: | 44Hz - 470Hz |
| | C: | 319Hz - 4kHz |
| | D: | 4kHz - 36kHz |
| Triangular and Square waves | A: | 16Hz - 300Hz |
| | B: | 70Hz - 2kHz |
| | C: | 484Hz - 28kHz |
| | D: | 6kHz - 20kHz |
| Saw-tooth wave | A: | 7Hz - 350Hz |
| | B: | 29Hz - 750Hz |
| | C: | 199Hz - 20kHz |
| | D: | 2.8kHz - 8kHz |