

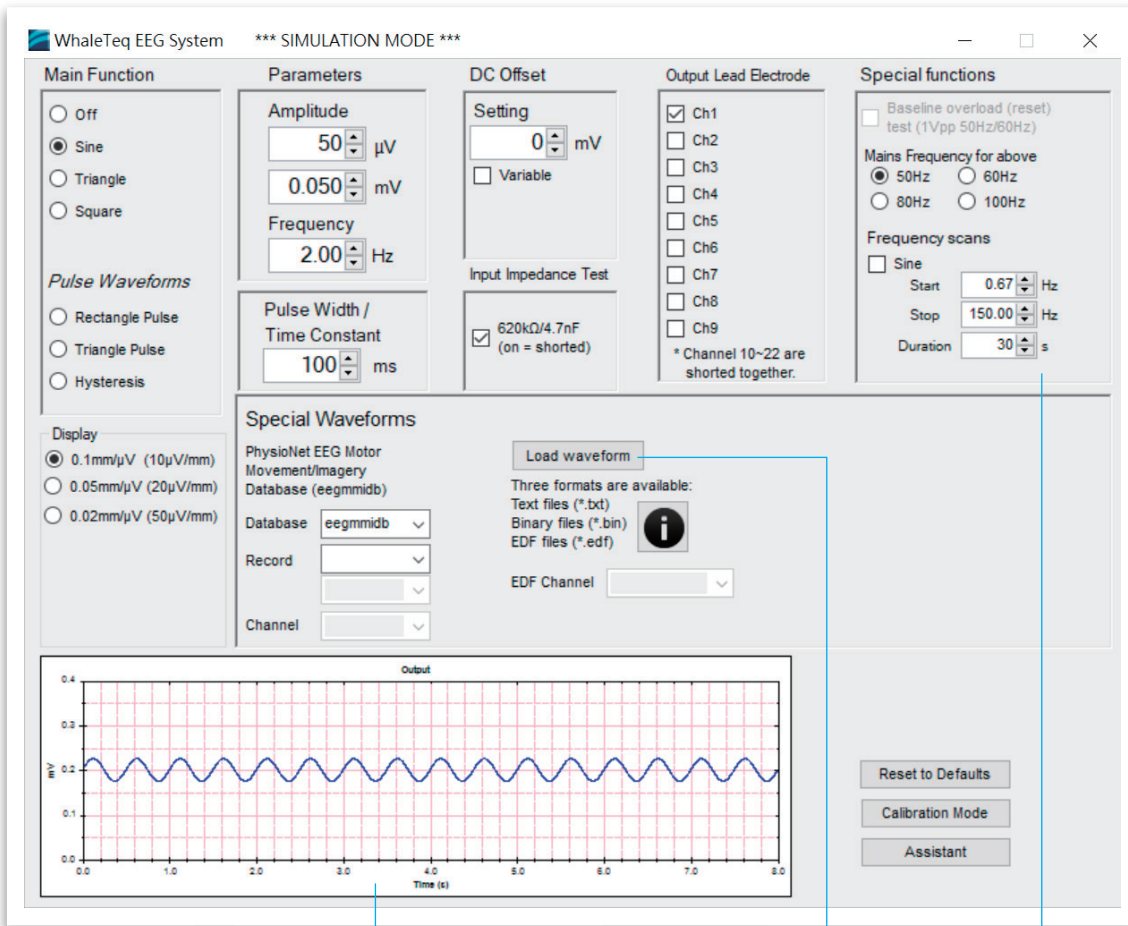
SEEG 100

EEG Performance Tester

Your EEG Simulator Designed for Regulation Testing

- Designed according to the latest EEG regulation standard IEC 60601-2-26:2012 and GB 9706.226-2021
- Sophisticated electrical design enables the test system to output 1µV signal
- 9 channels with auto-select switches for users to test performance individually
- Built-in test circuits as defined in EEG standards with selection of 620kΩ / 4.7nF for input impedance test
- Good shielding and grounding designs allow for higher accuracy
- A real-time single channel player for PhysioNet's EDF format waveforms and text / binary format waveforms
- IEC 60601-2-26 and GB 9706.226 helper makes the test sequences easier than ever

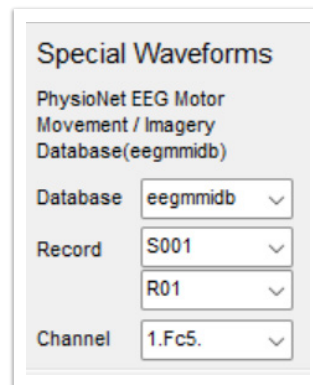
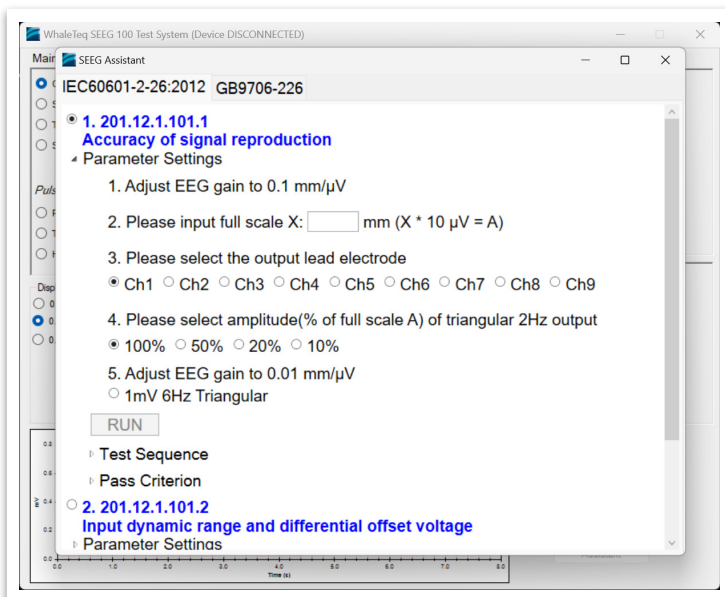
Simple and Effective Tool to Verify EEG Performance



Real-time waveform display

Adjustable parameters per IEC 60601-2-26 required

Load customized waveform format



Easy to download PhysioNet waveforms via EDF File Manager

Optional IEC 60601-2-26 and GB 9706.226 helper simplifies the medical standard into required parameters, test sequences and pass criteria

Specifications

Technical Specifications

Parameters	Specifications
Main output voltage accuracy	±1% for amplitudes of 50μVpp or higher
Main output voltage resolution (DAC resolution)	0.5μV
Frequency / pulse repetition rate accuracy	±0.1%
Pulse duration / timing accuracy	±0.2ms
Resistor tolerance	±0.5%
Capacitor tolerance	±5%
Precision 1000:1 divider (100kΩ : 100Ω)	±0.05%
Sample rate	5kHz ±0.05% (50ppm)
DC offset (fixed, noise free, sourced from internal supercapacitor)	300mV ±0.1%
DC offset (variable, may include up to 50μVpp noise)	Setting ±1% or ±3mV
Power supply	Typical load < 0.25A, up to 0.45A is possible if all relays are turned on
Environment	5 – 40°C 50 – 80% RH altitude < 2000M
Safety Signal processing	Built-in USB IC protection mechanism to avoid the impact from high voltage and current; as well as special filters to reduce noise from the microprocessor (8MHz) and DC/DC converters (200kHz).

Signal Type

Parameters	Setting Range	Default Values	Minimum Step Size
Sine	Frequency (Hz)	0.05 – 500Hz	10Hz
	Amplitude	(-2000) – 2000μV	100μV
Triangle	Frequency (Hz)	0.05 – 500Hz	10Hz
	Amplitude	(-2000) – 2000μV	100μV
Square	Frequency (Hz)	0.05 – 500Hz	10Hz
	Amplitude	(-2000) – 2000μV	100μV
Rectangle pulse	Frequency (Hz)	0.05 – 5Hz	5Hz
	Amplitude	(-2000) – 2000μV	100μV
	Pulse width	2 – 300ms	100ms
Triangle pulse	Frequency (Hz)	0.05 – 5Hz	5Hz
	Amplitude	(-2000) – 2000μV	100μV
	Pulse width	2 – 300ms	100ms
Hysteresis	Frequency (Hz)	0.05 – 500Hz	5Hz
	Amplitude	(-2000) – 2000μV	100μV
	Pulse width	2 – 300ms	100ms

Signal Add-on

Parameters	Setting Range	Default Values	Minimum Step Size
DC offset	(-1000) – 1000mV	0mV	1
620kΩ / 4.7nF (Turn on for short circuit)	on / off	Off	-
Noise	Main noise	50Hz, 60Hz, 80Hz, 100Hz (The 80Hz and 100Hz settings are for capacitance correction only, not for testing EEG.)	50Hz
	Start frequency	0.67 – 500Hz	0.67Hz
Frequency scan (Sine)	Stop frequency	0.67 – 500Hz	150Hz
	Duration	10 – 180s	30s
Output lead electrode	Ch1 – Ch9 (Ch10 – Ch22 are shorted together.)	Ch1	-

