

Audio Generators

AG-203D/AG-204D

OUTLINE

The AG-203D and AG-204D are low-frequency signal generators featuring sine wave output with low distortion and square wave output with good rise time characteristics. They cover the frequency range of 10 Hz to 1 MHz with no breaks, and are designed for versatility, with such features as external synchronization, a 10 dB-per-step attenuator for accurate output voltage setting, and a large dial for frequency setting. All this performance is packed into a slim, compact, easy-to-operate signal generator housing.

FEATURES

Wide Frequency Range

The oscillation frequency range extends from 10 Hz to 1 MHz, covered in five continuous steps. A large, single-scale dial is used to simplify the measurement value reading (oscillation frequency setting).

Low-Distortion, Flat Voltage Output

With low distortion of below 0.1% with the AG-203D and below 0.02% with the AG-204D and output voltage deviation within ± 0.5 dB over the entire frequency range, these generators will find use in a broad range of applications, particularly in distortion measurements, S/N measurements and frequency response measurements.

10 dB-Per-Step Attenuator

The output voltage can be set from 0 to 50 dB in 10 dB steps using a built-in attenuator, this combining with a fine adjustment to enable the output of any desired voltage level in that range.

Synchronizing to External Signals

By synchronizing the output to an external signal through the external sync input, it is possible to output more accurate frequencies from these generators.



AG-203D/AG-204D

Rectangular Wave Output with Good Rise Time Characteristic
In addition to low-distortion sine waves, square waves with excellent rise time characteristics can be output, this is very convenient for use in the adjustment and servicing of audio equipment, and for educational experimentation in school laboratories etc.

SPECIFICATIONS

Frequency range	10Hz ~ 1MHz	
	× 1 range	10Hz to 100Hz
	× 10 range	100Hz to 1kHz
	× 100 range	1kHz to 10kHz
	× 1k range	10kHz to 100kHz
	× 10k range	100kHz to 1MHz
Frequency accuracy	± (3 % + 1Hz)	
Sinewave characteristics		
Output voltage	5Vrms or more (at 600Ω load)	
Output voltage deviation	± 0.5dB (10Hz to 1MHz)	
Distortion factor		
AG-203D :	400Hz to 20kHz	0.1% or less
	100Hz to 100kHz	0.3% or less
	(100Hz : at × 10 range)	
	50Hz to 200kHz	0.5% or less
	20Hz to 500kHz	1.0% or less
	10Hz to 1MHz	1.5% or less
AG-204D :	500Hz to 20kHz	0.02% or less
	100Hz to 100kHz	0.05% or less
	(100Hz : at × 10 range,	
	100kHz : at × 1k range)	
	50Hz to 200kHz	0.3% or less
	20Hz to 500kHz	0.5% or less
	10Hz to 1MHz	1.5% or less
Squarewave characteristics		
Output voltage	10Vp-p (600Ω load)	
Rise time	200ns max (at maximum output)	
Duty ratio	Within 45:55 (at 1kHz, maximum output)	
External sync characteristics		
Synchronous range	± 1%/Vrms or more	
Maximum input voltage	15V (DC + AC peak)	
Input impedance	Approx. 100kΩ	
Output characteristics		
Output impedance	Approx. 600Ω	
Output attenuator	0dB, - 10dB, - 20dB, - 30dB, - 40dB, - 50dB (6 steps)	
Output attenuator accuracy	within ± 1dB	
Temperature/humidity		
for operation	0 to 40	RH85%
Power source	100/120/220V/230V AC, ± 10% 50/60Hz	
Power consumption	Approx. 5W	
Dimensions	AG-203D :	128 (W) × 190 (H) × 239 (D) mm
	AG-204D :	128 (W) × 190 (H) × 285 (D) mm
Weight	AG-203D :	Approx. 2.9kg
	AG-204D :	Approx. 3.2kg
Accessories	Instruction manual (1), accessory cable (model: CA-48P)(1), power cord (1)	