THIẾT BỊ PHÁT TÍN HIỆU DẠNG SÓNG (Lên đến 30MHz)

SG-4300 Series

Various types of output waveforms

30MHz 2ch
SG-4322 CE

30MHz 1ch
**SG-4321** CE

Phát được nhiều dạng sóng khác nhau

•Sine •Square •Pulse •Ramp •Parameter-variable •Arbitrary

Standerd waveforms, Large capacity arbitrary,Standerd parameter variable waveforms(25 waveforms)

Trang bị nhiều tính năng và chuyển đổi linh hoạt

•Sweep •Modulation •Burst •Trigger •Gate •Sequence •Synchronus operation •Variable duty •Variable rise •Variablr fall

Equipped with program operation, parameter-variable waveforms etc,.

SG-4322 front panel
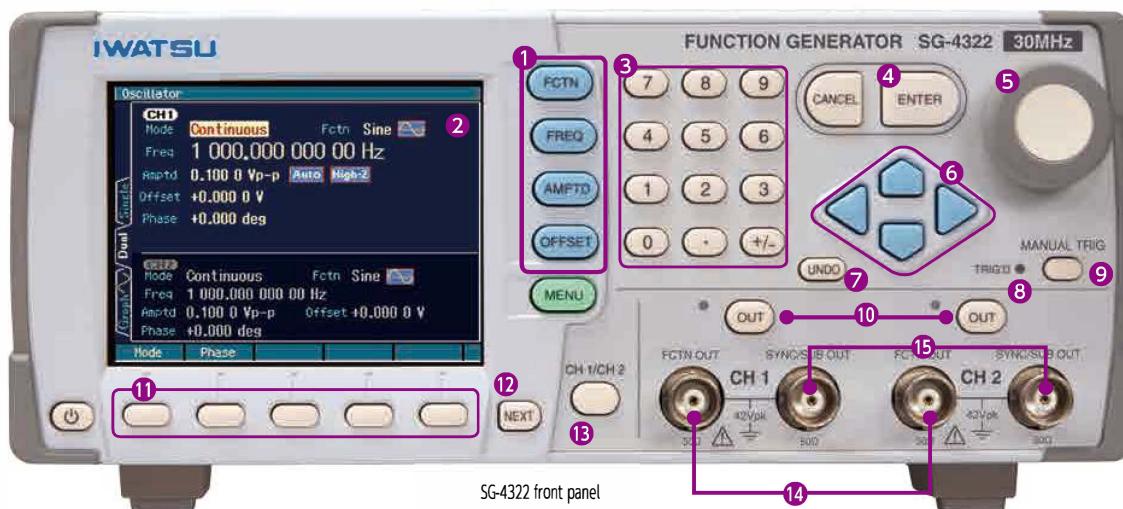
❶ Basic Parameters / Shortcut keys
❷ 3.5# QVGA TFT Color LCD display
❸ Ten-key for direct input
❹ Enter key : Execute each setting
❺ Function knob for selecting items and values
❻ Arrow keys
❼ UNDO key for undo
❽ Triggered indication light
❾ Manual Triggering key
❿ OUT : Output on/off key
⓫ Soft keys for setting selectable functions
⓬ NEXT key for selecting from multiple setting pages
⓭ CH1/CH2 key for switching CH1 or CH2

⓮ CH1 and CH2 signal outputs
Isolated by each channel
  • Independent setting by each channel
  • Phase shift control between 2 channels
  • Synchronized output in different phase
  • Frequency variable between 2 channels
  • Different frequency output between 2 channels
  • Differential output

⓯ CH1 and CH2 synchronized signal outputs
Reference phase synchronization
  • Synchronized signal with internal frequency modification
  • Burst synchronization signal
  • Sweep synchronization signal
  • Sequence step synchronization signal
  • Synchronized signal with internal modification signal
  • Sweep X driving signal for X axes of oscilloscope/recorder

⓰ CH1 Trigger input BNC
⓱ CH2 Trigger input BNC
⓲ CH1 Output modification/Adder input BNC
⓳ CH2 Output modification/Adder input BNC
⓴ Outer 10MHz reference frequency signal input BNC
㉑ Frequency reference signal output BNC
㉒ Multiple I/O connector for sweep, sequence control and synchronization code output

㉓ GPIB interface connector
㉔ USB interface connector
㉕ Fan motor
㉖ AC inlet(AC90V to AC250V)

SG-4322 rear panel

Tính năng kiểm soát tuần tự
Có thể lập trình từng mẫu dạng sóng tín hiệu

Dao động tuần tự được sử dụng để lập trình kết hợp nhiều đầu ra mẫu và loại Dạng sóng, tần số, biên độ, chu kỳ nhiệm vụ và độ lệch. Nó có thể được sử dụng cùng với hàm biến tham số ở các mẫu dạng sóng khung thời gian dài và phức tạp cho biến tần số / quét đột ngột.
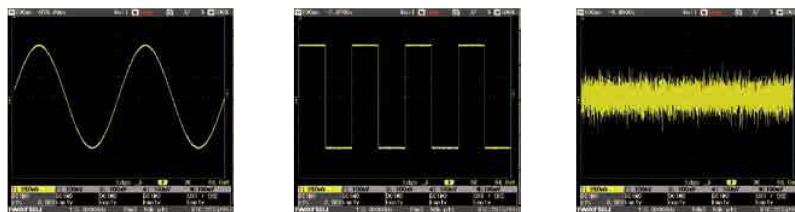
Waveforms 1

Waveforms 2

Waveforms 3
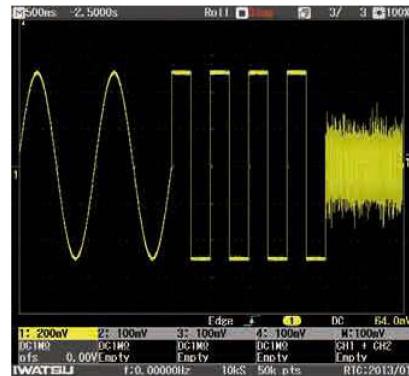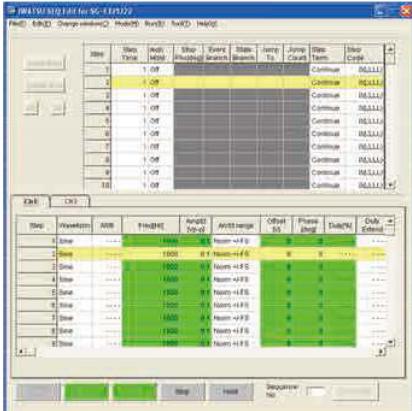
Waveform 1+2+3 at long memory

Tạo nhiều dạng sóng khác nhau với phần mềm hỗ trợ miễn phí.

Bộ nhớ ứng dụng lớn (Max 512k-Word /dạng sóng)

- Sao chép và dán các hình dạng sóng được thiết lập trước cho các dạng sóng tín hiệu phức tạp.
- Tạo dạng sóng từ công thức dạng sóng
- Mở rộng và nén các dạng sóng tín hiệu
- Tính toán giữa các dạng sóng
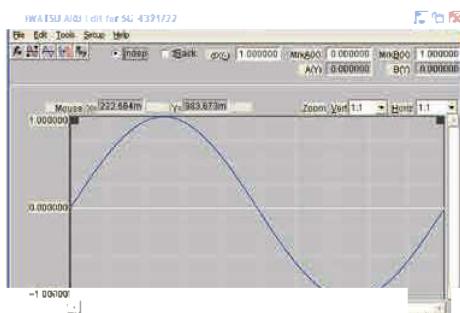
Arbitrary waveform generating software ARB Edit
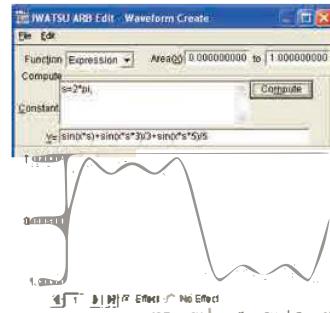
Waveform formula setting and waveform
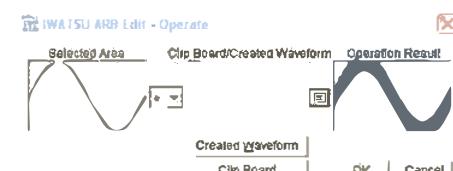
Computation between waveforms

TIÊU CHUẨN KỸ THUẬT

Product name	Function Generator			Continuous oscillation	○	○
Oscillation frequency	0.01 μHz to 30MHz		Oscillation mode	Burst/trigger/gate/ triggered gate	○	○
Number of channels	2 ch	1 ch		Sweep	Frequency, phase, amplitude, DC offset, duty ratio	
Vertical resolution for waveform	14bit			Internal modulation External modulation	FM, FSK, PM, PSK, AM,DC offset and PWM	
Output frequency range		0.01 μHz to 30MHz		Sequence	○	○
	⊓ (duty fixed)	0.01 μHz to 15MHz		Two channel mode	○	—
	⊓ (duty variable)	0.01 μHz to 15MHz		Synchronous operation	○	○
	⊓	0.01 μHz to 15MHz		External addition	○	○
	⌄ (symmetry variable)	0.01 μHz to 5MHz		Setting storage	○	○
	Parameter-variable waveforms (25 types)	0.01 μHz to 5MHz		GPIB interface	○	○
	Arbitrary waveform	0.01 μHz to 5MHz		USB interface	○	○
	Noise	Bandwidth 26MHz		Color LCD display	○	○
Frequency setting resolution	0.01 μHz			Arbitrary Waveform Editor	○	○
Rising/falling variable	Pulse 15.0ns to 58.8Ms			Sequence Editor	○	
Arbitrary waveform data length/number of waves	512K words / 128 waves, 4Mwords			Power supply	AC90V to 250V	
				Power consumption	75VA以下	50VA以下
Maximum output voltage/resolution	20 Vp-p/open, 10 Vp-p/ 50Ω , Resolution: 0.1 mVp-p or 1 mVp-p (depending on conditions)			External dimensions (mm) *2	216 (W) × 88 (H) × 33 2 (D)	
				Weight	approx. 2.1 kg	approx. 2.1 kg
User-defined unit	○	○		Application Software	Sequence Editing Software	
Input/output floating	○	○		Option	SG- 510 Multi Cable for input and output	
Isolation between channels	○					

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Function Generator
SG-4100 Series

GP|B

10mHz - 15MHz 1ch
SG-4105

10mHz - 5MHz 1ch
SG-4104

- Wide oscillation bandwidth from 10mHz to 15MHz (SG-4105)
- High accuracy (50ppm: SG-4105, SG-4104) and high stability waveform output by employing DDS (Direct Digital Synthesizer) system
- Max 20Vp-p (Output terminal open)
- 0.0% to 100.0% duty control/ Up to 65,536 Burst waveforms
- Offset control +10V to -10V (output terminal open)
- Waveform outputs are connected continuously when vary the frequency
- Linear / Log sweep function
- Simultaneous display of the frequency and output voltage
- Easy operation (set performance can be checked at a glance)
- PMC option (SG-506: SG-4105) best suited for evaluating pulse motor control
- Provides Small-amplitude on Large-offset

PMC function(Factory option)*
Pulse motor control function SG-506 (SG-4105)
Pulse motor control function
PMC option function controls pulse motor. Pulse motor acceleration or braking controls need to be reviewed not only by position control, but also under loaded condition. The PMC option simplifies the evaluation.
Pulse outputs in open collector (50V) are output from rear panel with PMC option.
Common motor driver circuit connected with PMC.

*PMC (Pulse Motor Control) is coined word by IWATSU TEST INSTRUMENT CORPORATION.
(Order any factory options when ordering the main unit. Additional orders after the delivery of the main unit require a separate fee.)
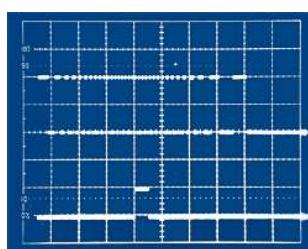
Upper waveform shows drive pulse for pulse motor, lower waveform shows sensor input waveform. After reaching maximum frequency while specified accelerating period, starts braking by sensor input signal. Then stops at specified pulse counts.

Boost Amp
SG-300
A useful drive amp that boosts signal generator output at 1MHz full power band.
The SG-300 is an amplifier for converting function generator output.
This amplifire can be used for a wide range of purposes, including the development of inverters and other mechatronic equipment.
The amplifire has a low impedance (Lo Ω) output, which enables it to be used with low power loss even driving low impedance loads.
It also supports amplitude modulation only at the positive side or only at the negative side, which enables zero level adjustment.

SG-300 Specifications

Maximum Voltage	24Vp-p (with 50 Ω load) / 48Vp-p (without load)
Maximum Current	DC or Peak 240mA (with 50 Ω load) / Continuous DC or Peak 300mA (with Lo Ω output)
Full Power Band width	1MHz (with a 50 Ω load and 24Vp-p output)

RS-USB Converter
SC-525
For use with the SG-4105
- The cable for connecting the RS-232 measurement unit to a personal computer's USB port.
- Overall length approximately 85cm.

* Can also be used with the VOAC7602, VOAC7502, VOAC7500H series, SC-7200H series.