

DUAL CHANNEL SIGNAL GENERATOR

Sine wave frequency 20MHz 2.4 inch TFT color LCD



Large screen display



Measurement function



Sweep function



Data storage



USB data transfer



Easy to use



ONE MACHINE WITH MULTIPLE FUNCTIONS

Function signal
generator

Arbitrary waveform
generator

Pulse signal
generator

Noise
generator

Frequency meter

Counter

Sweeper

Modulation mode



The instrument adopts direct digital frequency synthesis technology and can output signals with high accuracy, stability and low distortion

FUNCTION PANEL INTRODUCTION



- | | | |
|------------------|-------------------------------------|-------------------------|
| 1. LCD display | 5. Measuring signal input interface | 9. USB Device Interface |
| 2. Model | 6. Signal output interface | 10. Expansion interface |
| 3. On/Off key | 7. Shuttle knob | 11. Power switch key |
| 4. Function keys | 8. Shortcut keys | 12. Power connector |

DESKTOP MULTIMETER AND COMPUTER CONNECTION

The instrument can be connected to a computer through the RS232 interface



TECHNICAL PARAMETER

Basic function

Frequency characteristic

Model	2015H	2040H	2060H
Sine wave	1μHz~ 20MHz	1μHz~ 40MHz	1μHz~ 60MHz
Square wave	1μHz ~ 15MHz		
Trigonometric wave	1μHz ~ 15MHz		
Pulse wave	100μHz ~ 6MHz		
Arbitrary wave	1μHz ~ 6MHz		
Resolution	1μHz		
Accuracy	±20ppm		
Stability	±1ppm/3Hours		

Waveform characteristic

Waveform type	Sine wave, square wave, triangle wave, pulse, noise, arbitrary wave (including DC). There are 32 built-in arbitrary waves and 50 user-defined arbitrary waves.	
Length	8192 points	
Sampling rate	200MSa/s	
Vertical resolution	13 bits	
sine wave	Suppression	≥45dBc(<1MHz); ≥40dBc(1MHz~20MHz)
	Total distortion	<0.8%(20Hz ~ 20kHz, 0dBm)
square wave	Rise/fall time	<20ns
	Overshoot	<5%
	Duty cycle	Frequency<100kHz: 1%~99%; 100kHz ≤ frequency<5MHz: 20%~80%; 5MHz ≤ frequency: 40%~60% (0.1% resolution)
Pulse wave	Pulse width	Minimum 20ns; 1ns resolution
	Edge jump time	Minimum 20ns;
	Overshoot	<5%
	Shake	6ns+0.1% cycle
Sawtooth wave	Linearity	≥98%(0.01Hz~10kHz)
	Symmetry	0.0~100.0% (resolution 0.1%)

Output characteristic			
Amplitude range	FREQ<10MHz	10MHz ≤ FREQ < 30MHz	30MHz≤FREQ
	2mVpp ~ 20Vpp	2mVpp ~10Vpp	2mVpp ~5Vpp
Amplitude resolution	1mV		
Amplitude accuracy	1% of setting value+2mVpp (1kHz sine wave, 0 offset,>10mVpp)		
Amplitude flatness	±0.4dB <10MHz ; ±1.0dB ≥10MHz		
Output impedance	50 Ω± 10% (typical)		
Protect	All signal output terminals can work within 60s under load short circuit		
Phase characteristic			
Adjustment range	0~359.9°		
Resolution	0.1°		
External measurement function			
Frequency meter	Measuring range	1Hz ~ 100MHz	
	Gate time	0.01s~10s continuous adjustment	
Counter function	Count range	0 ~ 4294967295	
	Restart at	Manual	
Input voltage	2Vpp~20Vpp		
Coupling mode	DC or AC coupling modes		
Pulse width/cycle	1ns resolution, maximum measurable 20s		

AM modulation, FM modulation, PM modulation	
Output channel	CH1 or CH2
Carrier	Sine wave, square wave, sawtooth wave, pulse wave, arbitrary wave
Source	Internal/external VCO (external is optional)
Modulated wave	Sine, square wave, triangle wave, upslope wave, downslope wave
Modulation frequency	2mHz~20kHz
Modulation depth	0%~120% (AM modulation)
Frequency offset	0~maximum carrier frequency (FM modulation)
Phase deviation	0 °~360 ° (PM modulation)
ASK modulation, FSK modulation, PSK modulation	
Output channel	CH1 or CH2
Carrier	Sine wave, square wave, sawtooth wave, pulse wave, arbitrary wave
Source	Internal/External
Modulated wave	Square wave with 50% duty cycle
Modulation frequency	2mHz~1MHz
Modulation amplitude	0~carrier amplitude (ASK modulation)
Frequency hopping	Carrier frequency range (FSK modulation)
Modulation phase	0 °~360 ° (PSK modulation)
Frequency sweep function	
Sweep channel	CH1 or CH2
Sweep type	Linear scan, logarithmic scan
Sweep time	1ms ~ 999.999s
Setting range	Arbitrary setting of starting point and ending point
Sweep direction	Forward, reverse, round-trip
Trigger source	Internal, external, manual

Burst characteristic	
Output channel	CH1 or CH2
Carrier	Sine wave, square wave, sawtooth wave, pulse wave, noise, arbitrary wave
Pulse counting	1~1048575 or unlimited, gated
Start/stop phase	0~360°
Internal cycle	One μ s~500s
Gated source	External
Trigger source	Internal, external, manual
General technical specifications	
Power Supply	AC 110~240V, 50~60Hz
Power waste	<15W
Type	2.4 inch TFT LCD screen
Resolving power	Three hundred and twenty $\times$ two hundred and forty
Color	16M color
Temperature range	Operation: 10 °C~+40 °C; Non operating: - 10 °C~+60 °C
Cooling method	Natural cooling
Humidity range	35 °C: $\leq$ 90% relative humidity; 35 °C~+40 °C: $\leq$ 60% relative humidity
Interface	USB Device