

UTG9000C SERIES FUNCTION GENERATOR OPERATING MANUAL

Introduction

Thanks for purchasing our product! In order to ensure to use this Instrument correctly for the best performance, please read this manual in detail and keep it properly. This Instrument is under strictly quality control for production. All the parts go through screening and ageing, and a series performance testing, environmental testing and safety testing, Guaranty for safety in proper using. The best working performance under the guidelines of working environment.

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Summary

UTG9000C series function generator can outputs sine, square, triangle, pulse, ramp, TTL single pulse etc. Its signal frequency is up to 10MHz. It can adjust DC level, duty cycle. It displays the frequency with a 4-digits-LED meter, and displays the output amplitude with a 3-digits-LED meter. It also can be used as a 10MHz frequency counter.

Accessories

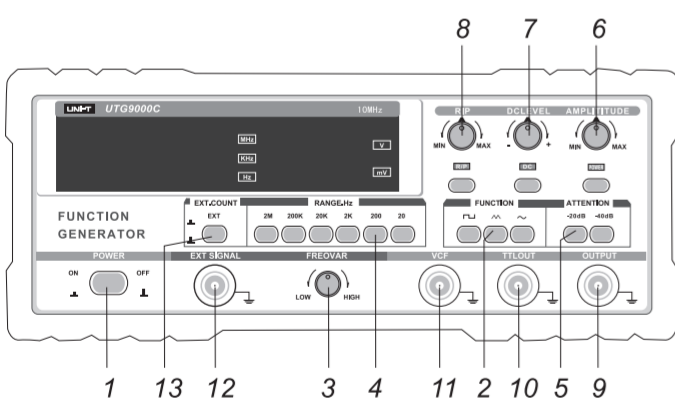
Check the Meter whether there is any damage or metal part is exposed. Packing box include the below items. If any differences or damage, please contact the nearby sales offices. Standard accessories are as below:

- | | |
|------------------------------------------------|-------|
| 1. Cable with BNC/Insulated Clips Terminations | 1 pcs |
| 2. Power cord | 1 |
| 3. Instruction manual | 1 |

Specifications

Spec.	Model	UTG9002C	UTG9003C	UTG9005C	UTG9010C
Upper Limit Frequency		2MHz	2MHz	5MHz	10MHz
Waveform		Sine, Square, Triangle, Pulse, Ramp etc.			
Frequency		0.2Hz ~ 2MHz		0.5Hz ~ 5MHz	1Hz ~ 10MHz
Display		Amplitude, Frequency			
Frequency error		≤ ± 1%			
Amplitude error		≤ ± 5%			
Max amplitude		20Vp-p	25Vp-p	20Vp-p	
Output power ²		2Wp-p	4.5W	2Wp-p	
Attenuator		20dB+40dB			
DC level		-10V ~ +10V			
Duty cycle		10% ~ 90%			
Distortion of sine		≤ 2%			
Rise time		≤ 50ns		≤ 35ns	
VCF		100 : 1		100 : 1	
TTL		√			

Function of panel controls



1. **POWER**: When this button is pushed in, the power is turned on and the power lamp lightens.
2. **FUNCTION**: Select the waveform to output
 : Sine wave
 : Rectangular wave
 : Triangle wave

3. **FREQ. VAR**: Adjusts the frequency continuous in the range selected.
4. **RANGE-Hz**: Selects the frequency ranges of the signal.
5. **ATT**: Attenuate the output signal in 10dB, 20dB, 30dB, 40dB, 50dB, 60dB or 70dB.
6. **AMPLITUDE**: Adjust the amplitude.
7. **DC OFFSET**: When the button is pushed in, the lamp lightens, and the DC component of output is adjustable. When the button is pushed out, the DC component is zero offset.
8. **RAMP/PULSE**: When the button is pushed in, the lamp lightens, the output frequency divided by 10. The duty cycle ratio of the ramp or pulse can be adjusted from 10% to 90%; When the button is pushed out, the duty cycle ratio is 50%.
9. **OUTPUT**: Outputs signal.
10. **TTL OUT**: Output a rectangular waveform for TTL circuits.
11. **VCF**: Input connector for the signal controlling frequency.

12. **EXT SIGNAL**: Frequency counter input terminal.
13. **EXT COUNT**: When the button is pushed in, the indicator lights, the 4-digits-LED meter can be used as a frequency counter. The measured signal should be input from the INPUT terminal and the amplitude of measured signal should be from 0.5V to 5V.

5. Adjust the Amplitude until adaptable
6. If you want to set the DC offset, push in the DC offset button and adjust the DC offset to a convenient level or push it out.
7. TTL level signal is output from the TTL terminal.
8. If a voltage is connected to the "VCF" connector, the frequency of output signal will controlled by the voltage.

Operation

1. Connect the power cable to the AC input. Then push in the power switch.
2. Select a RANGE-Hz switch and push it in.
3. Select a FUNCTION switch and push it in. If you want to output a pulse or ramp wave, push in the PULSE/RAMP button and adjust the pulse time or ramp ratio, or push it out.
4. If you want to output a small signal, push in the ATT

Caution

1. Check line voltage prior to connect the instrument to the power source.
2. Don't connect a voltage higher than 10V (DC+AC) to the output terminal, TTL output terminal or VCF input terminal.

END

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