



## FUNCTION GENERATOR FG3006

**APPLICATION:** FG3006 single channel signal generator is a portable, high-performance, cost-effective and multi-functional signal generator which integrates the functions of function signal generator, pulse signal generator, counter and frequency meter.

### FEATURES:

- ◆ Adopt DDS direct digital synthesis technology to generate accurate, stable and low-distortion output signals;
- ◆ Desktop design with ABS plastic shell, and power supply with 5V (DC) DC voltage;
- ◆ Use a 2.4-inch (320\*240 pixels) color display screen to display relevant waveform parameters;
- ◆ The maximum output frequency is 5MHz (sine wave), the sampling rate is 150 MA/s, and the vertical resolution is 12bits;
- ◆ Various waveforms:
  - sine wave
  - Square wave (adjustable duty cycle)
  - COMS wave (adjustable duty cycle)
  - Direct current wave
  - triangular wave
  - Rising sawtooth wave
  - Decreasing sawtooth wave
  - Stepped triangular wave
  - Positive full wave
  - Positive half wave
  - Random noise wave
  - Amplitude modulation waveform
  - Frequency modulation waveform
- ◆ High frequency accuracy: the frequency accuracy can reach 10<sup>-2</sup> orders of magnitude;
- ◆ High frequency resolution: the full range frequency resolution is 10mHz or 0.01Hz ; ;
- ◆ High amplitude resolution: the minimum amplitude resolution can reach 10mV, that is, 0.01V ; ;
- ◆ It has DC bias function of -7.5V ~+7.5V.
- ◆ The duty ratio can be adjusted independently, and the adjustment accuracy can reach 0.1%;
- ◆ No range limit: the full range frequency is not graded, and the digital setting is direct;
- ◆ Scanning characteristics: it can scan the four attributes of the signal: frequency and duty ratio, and has two scanning modes: linear scanning and logarithmic scanning, with the scanning time of 999.9S, and the scanning start and stop points can be set at will;



- ◆ It has the function of burst output of pulse train, which can be triggered manually or externally, and can make this machine output 1 ~ 100,000 arbitrary pulse trains;
- ◆ With digital signal output function, it can realize any CMOS level with the amplitude of 0~7.5V;
- ◆ Storage features: 20 sets of user-set instrument state parameters can be stored and recalled at any time;
- ◆ 75M frequency meter function: It has four measuring methods: frequency measurement, period measurement, positive and negative pulse width measurement and duty ratio measurement. The maximum measuring frequency of the instrument can reach 75MHz and the minimum measuring frequency is 0.01Hz ; .
- ◆ Counter function: It has two coupling measurement methods, DC and AC, which effectively solves the problem of inaccurate AC coupling counting.
- ◆ All parameters can be calibrated by internal programs; Powerful communication function, and PC can be used to control the instrument. The open communication protocol makes the secondary development very simple;
- ◆ High reliability: large-scale integrated circuit, surface mount technology, high reliability and long service life;
- ◆ Output short-circuit protection: All signal output terminals can work for more than 60S under the condition of load short circuit.

## **SPECIFICATION:**

|                           |   |
|---------------------------|---|
| Display type              | 2.4 inch TFT color liquid crystal display   |
| quantity                  | 20 sets of data   |
| location                  | 01 to 20 (the storage location parameter of 01 is called by default at startup)                   |
| Interface mode            | Adopt USB to serial interface   |
| Communication rate        | Industrial standard 115200bps is adopted.   |
| protocol                  | Command line mode is adopted, and the protocol is open.   |
| Voltage range             | DC 5V   |
| manufacturing process     | Surface mount technology, large scale integrated circuit, high reliability and long service life. |
| Buzzer prompt tone        | The user can set it on or off through the program.  |
| Operating characteristics | All keys are operated, and the knob is continuously adjusted.                                     |
| environmental conditions  | Temperature: 0~40°C Humidity:-80%   |
| Size                      | 190mm (length) X200mm (width) X 72mm (height)   |
| Weight                    | 350g (mainframe), accessories (150g)  |

## **ACCESSORIES**

5V 1A power adapter, USB-B data line, BNC to clamp cable (Q9 clamp cable), BNC-BNC connecting cable, User manual.

