FG 503

The FG503 is a high performance and low cost function generator with synthesized frequency accuracy. It is designed by a high-tech team, using the most advanced waveform synthesis techniques to generate a pure low distortion and clean output. This instrument combines the bench-top and system features which provides a versatile solution for your testing requirements now and in the future

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Features

- 10mHz~3MHz DDS Source
- Sine, Square, Triangle, Ramp up, Ramp down, and DC Waveform
- Linear & Log Sweep Function
- External Amplitude Modulation
- Synchronous TTL Output
- Harmonic Distortion Less Than -60dB
- RS-232 Interface
- SCPI Programming Language Compatible
- Optional GPIB (IEEE-488.2) Interface
- Optional 2GHz Intelligent Frequency Counter

Specifications

Waveforms:
Sine, Square, Triangle, Ramp Up, Ramp Down, and DC.

Frequency Characteristics:

Sine:	10mHz to 3MHz
Square:	10mHz to 3MHz
Triangle:	10mHz to 20KHz
Ramp:	10mHz to 20 KHz
Resolution:	10mHz or 7 digits
Accuracy:	< 50 ppm, (20 min, after power on) 18℃ to 28℃
Temp coef.:	< 5ppm/C

Sinewave Harmonic Distortion:

10mHz to 20KHz:	-60dB typical
20KHz to 100KHz:	-50dB typical
100KHz to 1MHz:	-45dB typical
	-40dB typical

1MHz to 3MHz:

Signal Characters:

Squarewave Rise/Fall time:	< 35ns
Overshoot:	1%
Triangle, Ramp Rise/full time:	100 ns (typically)
Linearity:	< 0.1% of peak output
Jitter:	< 35 ns

Amplitude(into 50 Ω): 20mVpp to 10Vpp

(Unload):	40mVpp to 20Vpp
Accuracy (at 1 KHz):	± 1% of setting +5mV(Sin,Squ) ± 3% of setting +10mV(Tri,Ramp,Typical)
Resolution:	1mV
Flatness (sinewave relative to 1 KHz):	± 1% 100KHz ± 1.5% 100KHz to 1MHz ± 2% 1MHz to 3MHz

Output Impedance:
50 Ω ± 5%

DC Offset
There are 3 ranges in DC Offset

Unload

Vp+|Voffset| ≤ 10V when 1V ≤ Vp ≤ 10V

Vp+|Voffset| ≤ 1V when 100mV ≤ Vp < 1V

Vp+|Voffset| ≤ 100mV when Vp < 100mV

50Ω load

Vp+|Voffset| ≤ 5V when 1V ≤ Vp ≤ 10V

Vp+|Voffset| ≤ 1V when 100mV ≤ Vp < 1V

Vp+|Voffset| ≤ 100mV when Vp < 100mV

Accuracy: ±2% of setting ± 2mV

Frequency Sweep:

Type:	Linear or Logarithmic
Span:	1:400 or programmable through RS 232C interface or GPIB interface by the computer
Setting:	1. Set center frequency at front panel then: Start Frequency=Center Frequency /20 Stop Frequency=Center Frequency *20 2. The start and stop frequency can be set directly through RS232C interface or GPIB interface by the computer

Frequency Counter and Duty Cycle (Optional Function):

Freq Range:	10.000000 Hz to 60.00000 MHz (for low range). 60.00000 MHz to 2.000000 GHz (for high range).
Resolution:	7Digits.
Accuracy:	± 5counts ± time base accuracy.
Duty Cycle:	(TTL Input only).
Accuracy:	10Hz ≤ f ≤ 100K 2% ± 5digit 100K ≤ f ≤ 1M 2.5%

Protection:
Short-circuit protected

Overdrive protection < 20VPeak

General Specifications:
Power Source: AC 110V or 220V, 50Hz/60Hz
Power Consumption: 30 Watts Average
Operation Environment: 0℃ to 50℃, 80% Relative Humidity
Storage Environment: -20℃ to 70℃
Dimension: 310mm x 220mmx 102mm (WxHxD)
Weight: 3.7kg
Accessories: power cord x 1, operation manual x1

Power Supplies | Function Generator | Power Clamp Meters | LCR Meters | Digital Multimeters | Electronic Load
Transmission Line Testers | RF Training System | Other Products