

20 MHz Sweep / Function Generator

The FGE 1202 is a microprocessor controlled programmable function generator providing a full featured, accurate generator in compact low cost instrument. The design incorporates an LED back lit 16 x 2 LCD giving clear easily read characters. The main output has wave – shapes of sine, square, triangle and DC. The output frequency is continuously displayed along with the current edit parameters. As standard an RS232 interface allows remote control via a computer. Output has offset, amplitude and symmetry control plus attenuation. An external input allows for external sweep and modulation (AM and FM). Internal sweep is also provided with a sweep rate of 20mS to 20 Seconds with sweep modes log and lin.



MAIN FEATURES

- ◆ *Comprehensive facilities*
- ◆ *RS232 interface as standard*
- ◆ *Optional software*

FEATURES

- ◆ 0.2Hz – 20MHz frequency range
- ◆ Internal and External Sweep
- ◆ 16 x 2 Backlit LCD
- ◆ AM and FM Modulation
- ◆ Microprocessor controlled
- ◆ Memory store of 30 set ups
- ◆ Optional PC software for additional features
- ◆ Low cost providing the optimum performance
- ◆ DC Offset
- ◆ 0 to 20 volts Output
- ◆ Frequency lock mode
- ◆ Symmetry Control
- ◆ Attenuator -20db / - 40db
- ◆ Ergonomic design
- ◆ RS 232
- ◆ Digital control

SPECIFICATION

Frequency

Frequency:	0.2Hz to 20MHz, in 8 decade ranges
Frequency range:	10:1 on each decade range
Readout resolution:	5 digits
Accuracy:	Basic: Typically +/-5% plus 10, digits better than +/-10% Lock: Typically +/-0.05% plus 2 digits on KHz & MHz ranges

Offset

Range:	+/- 10V from 50 Ohm, offset plus signal limited to +/-10V(+/-5V into 50 Ohm)
Resolution:	100mV steps
Accuracy:	+/-10% of setting +/-1 step
Readout resolution:	100mV

Amplitude

Range:	1V to 20V pk-pk (0.5V to 10V pk-pk into 50 Ohm)
Resolution:	100mV steps
Accuracy:	+/-10% of setting +/- 1 step
Readout resolution:	100mV

Symmetry

Range:	15:85 to 85:15 up to 1MHz 40:60 to 60:40 up to 20MHz
Resolution:	1% steps
Accuracy:	+/-1 step
Readout resolution:	1%
Frequency pulling:	<2% to 1MHz, <5% to 20MHz

Functions

SINE	
Distortion:	Typically 2% on KHz ranges
TRIANGLE	
Linearity:	Typically 99% on KHz ranges
SQUARE	
Rise and Fall times:	< 25nS
DC:	+/-10V from 50 Ohm

Sweep (internal)

Programmable:	Start frequency, Stop frequency and Rate.
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Start:	
Readout resolution:	3 digits
Accuracy:	+/- 10 digit

Stop:	
Readout resolution:	3 digits
Accuracy:	+/- 10 digit

Rate:	
Rate	20mS to 20 Sec
Readout resolution:	20mS for 20mS to 1Sec 1Sec for 1Sec to 20Secs

Mode:	
Mode:	Linear or Logarithmic

External input	
Input impedance:	15K Ohm
Max input voltage:	+/-10V

Sweep function (External)

External:	
Input sensitivity:	Typically 20:1 Approximately 0V to 2V for 10:1 sweep
Max skew rate:	0.1V/uS

FM modulation

Range:	0 to 100%
Frequency:	DC to 50KHz
Sensitivity:	Approximately 0.1V p-p for 500 digits modulation

AM modulation

Range:	0 to 100%
Frequency:	DC to 50KHz
Sensitivity:	Approximately 0.1V p-p for 1V modulation

Outputs

50 Ohm:	1V to 20V peak-peak in 100mV steps (500mV to 10V pk-pk into 50Ohm)
-20 dB:	100mV to 2V peak-peak in 10mV steps (50mV to 1V peak-peak into 50Ohm)
-40 dB:	10mV to 200mV peak-peak in 1mV steps (5mV to 100mV peak-peak into 50Ohm)

TTL/CMOS:	1 standard TTL load
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RS232 interface

All instrument functions are accessible via remote control and all measurements can be read via remote control.

Baud rate:	2400
Data bits:	8
Parity:	No parity
Stop bits:	1 Stop bit

Programmability

Steps:	30 non-volatile programmable steps
Step load:	Steps may be selected and loaded into the current setup via the keyboard or RS232
Step store:	The current setup may be stored into a selected step via the keyboard or RS232
Step store contents:	All user configurable setting.

Mains requirement

AC input:	115V or 230V +/-15% 47 to 63Hz.
Power consumption:	25VA max. Installation Category II

General

Electrical safety:	Complies with EN61010-1
EMC:	Complies with EN55011 and EN500082-1
Environmental:	Indoor use at altitudes to 2000m, Pollution deg. 1
Operating range:	+5°C to +40°C, 20% to 80% RH
Storage range:	-10°C to 65°C
Size: (Excluding handle)	150mm(L) X 206mm(W) x 74mm(D)
Size: (Including handle)	245mm(L) X 244mm(W) x 74mm(D)
Weight:	1Kg

Due to a policy of continuous development, specification and design may be subject to change without notice

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Dealers Stamp