

CGM-101

Multi-Function USB Lab Instrument

Oscilloscope | Waveform Generator | Vector Network Analyser | Digital I/O

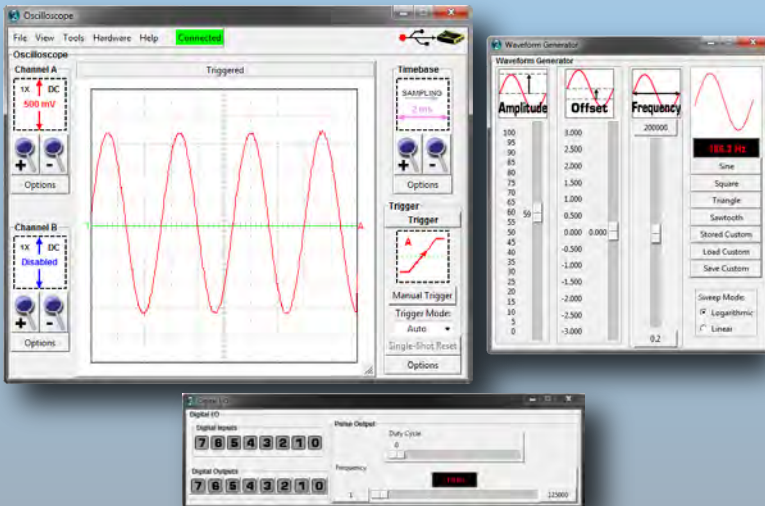
Syscomp Electronic Design's CGM-101 CircuitGear Mini is a powerful low-cost PC-based electronic test instrument. It combines a digital storage oscilloscope, standard function generator, arbitrary waveform generator, digital I/O, pulse generator and vector network analyser in one pocket-sized package, powered entirely from a single USB port.

All functions can be controlled from a computer running the Windows, Linux, or Mac operating systems, using our open-source software.

The CGM-101 oscilloscope features a sampling rate of 2MS/s. The waveform generator can generate standard and arbitrary waveforms at frequencies ranging from 0.2Hz to 200kHz in one sweep, eliminating the need for range selection or mechanical controls. The oscilloscope and waveform generator work together to form a vector network analyser using our open-source software. The fully documented command set is also compatible with MATLAB, LabVIEW and virtually any programming language.



Graphical User Interface



Key Features

- ✓ Portable, completely USB powered
- ✓ Powerful digital storage oscilloscope
- ✓ High resolution waveform display
- ✓ Standard and arbitrary waveform generator
- ✓ Vector Network Analyser
- ✓ Digital Inputs and Outputs
- ✓ Pulse Generator
- ✓ Spectrum Analyser
- ✓ Open-Source Software

Compatibility

- ✓ Windows 2000/XP/Vista/7/8
- ✓ Linux
- ✓ Mac OS X

Typical Applications

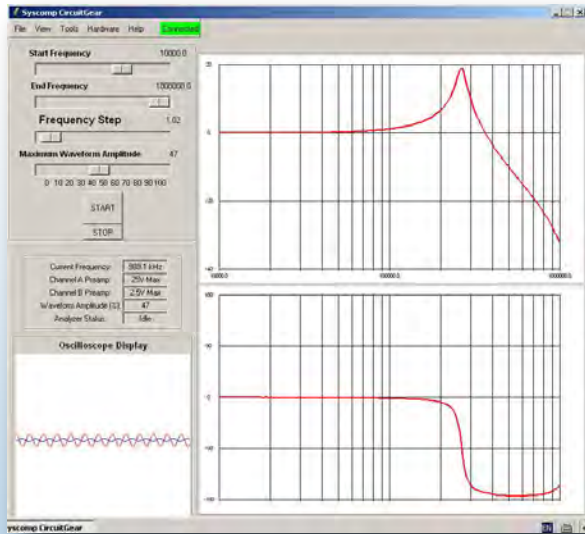
- ✓ General purpose electronics test
- ✓ Education/Electronics labs
- ✓ Field technicians/engineers

SYSCOMP
Electronic Design Ltd.

www.syscompdesign.com

CGM-101

Multi-Function USB Lab Instrument



General Specifications	
Interface	1 USB Port
Power Supply	USB Bus Powered
Dimensions	4.615" x 3.109" x 0.945" (117 x 79 x 24mm)

Arbitrary Function Generator	
Output Frequency Range	0 - 200kHz
Frequency Resolution	0.2 Hz
Amplitude Control	Hardware (12-bit)
Offset Control	Hardware (12-bit)
Waveform Vertical Resolution	8-Bits (Independent of Amplitude)
Output Range	+/-2.75V
Output Impedance	150 Ω
Standard Waveforms	Sine, Square Triangle, Sawtooth
Arbitrary Waveforms	8-Bit Vertical Resolution (256 Time Points)

Oscilloscope	
Number of Channels	2
Maximum Sampling Rate	2MS/s
Bandwidth	200 kHz
Input Voltage Span	10mV/div to 5V/div +/-25Vp-p with 1X Probe +/-250Vp-p with 10X Probe
Input Ranges	9 Ranges in 1:2:5 Sequence
Vertical Calibration	Yes, Software
Input A/D	11 bit
Input Impedance	1M Ω 20pF
Timebase Span	500ns/div to 20s/div
Timebase Ranges	24 Steps in 1:2:5 Sequence
Trigger	Normal, Auto, Single Shot, Ext.
Trigger Polarity	+/-
Trigger Level	Adjustable via on-screen cursor
Pre & Post Trigger Display	Adjustable via on-screen cursor
Readouts	Amplitude and Timebase Cursors
Sample Memory	1k samples/channel
Additional Modes	Strip Chart Mode X-Y Plot Spectrum Analysis Waveform Math

Digital I/O	
Output	8 bits, 5 volt, HCMOS
Input	8 bits, 3 or 5 volt, HCMOS
PWM	Variable frequency (1Hz-125kHz) Variable duty cycle
Trigger	Trigger In Trigger Out

Bode Plotter	
Type	Vector Network Analyser
Frequency Range	0.2 Hz to 200 kHz
Amplitude Response	Yes
Phase Response	Yes
Oscilloscope Display	Yes

System Requirements
 Pentium 600MHz, 128MB RAM, 30MB HDD Space
 Minimum 1024x768 Screen Resolution
 One USB Port
 Windows 2000/XP/Vista/7/8
 Linux with 2.4 Kernel or Higher, X Windows
 Mac OS X 10.4 or Higher, Power PC or Intel

What's Included
 CGM-101 USB Instrument
 USB Cable
 Software Download Instructions

Contact Us
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