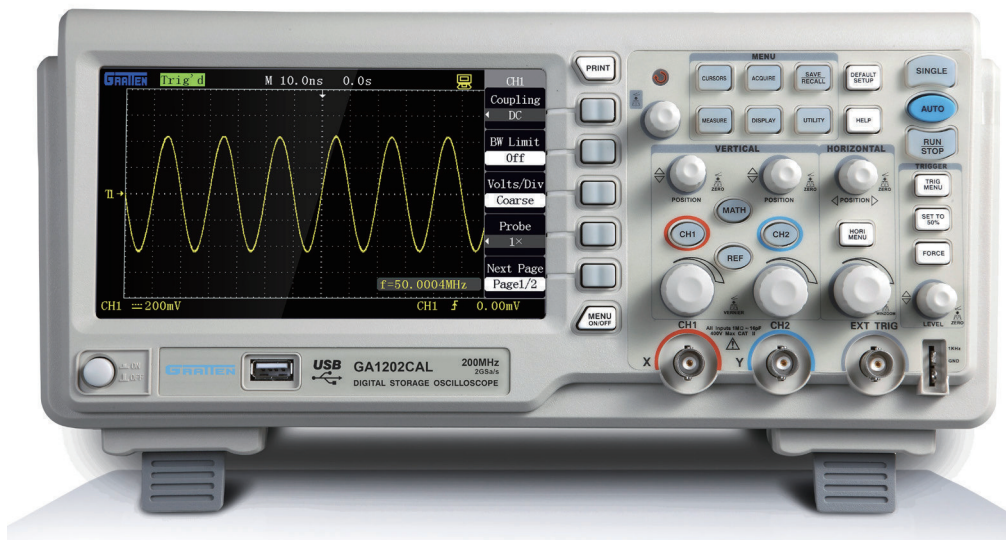


GA1000 Series Digital Storage Oscilloscope

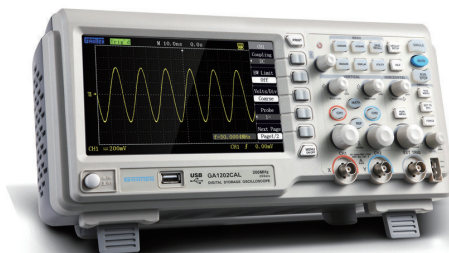


Summary

GA1000 Series is a two channels, 1Gsa/s/ 2Gsa/s sampling rate digital storage oscilloscope. It has easy-to-keyboard layout and high-definition 7-inchTFT color LCD display, providing clear and more stable waveform display; supporting picture copy function. With top performance, powerful function and competitive price, the digital oscilloscope can be widely applied in many fields of science education, enterprises research and development and industrial production.

Main features

- 2 analog channels, Max 200MHz bandwidth, 40Kpts memory depth, 1Gsa/s sampling rate
- Various trigger functions: Edge, Pulse, Video, slope and Alternation
- 32 kinds of automatic measurement and manual cursor tracking measurement functions
- Pass/fall function
- Flexible waveform recording and playback function
- Standard configuration port: USB Device, USB Host, RS232
- Various kinds of language interface display
- Support storage of USB flash disk and upgrading system software by USB. Support PC connection for remote communication

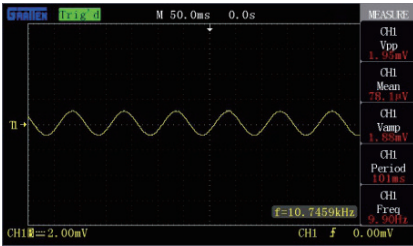


DIGITAL STORAGE OSCILLOSCOPE

Technical Parameters

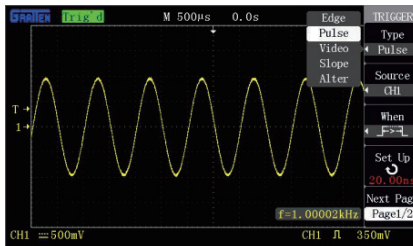
| GA1000CAL/CAM Series | | | | |
|-------------------------|---|--|----------------------------------|-----------|
| Model | GA1062CAL (GA1072CAM) | GA1102CAL (GA1112CAM) | GA1202CAL (GA1202CAM) | |
| Bandwidth | 60MHz (70MHz) | 100MHz (110MHz) | 200MHz | |
| Real-time Sampling Rate | 1Gsa/s | | | |
| Storage Depth | 40Kpts; 2Mpts (only CAM Series) | | | |
| Rise Time | < 5.8ns | < 3.5ns | < 1.7ns | |
| Input Impedance | 1MΩ±2% // 16±3pF | | 1MΩ±2% // 20±3pF 50Ω 5vrms | |
| Time Base | 5ns-50s/div (step-by-step 1-2-5) | 5ns-50s/div (step-by-step 1-2-5) | 2ns-50s/div (step-by-step 1-2-5) | |
| Vertical Sensitivity | 2mV-10V/div (step-by-step 1-2-5)(CAL); 2mV-5V/div (step-by-step 1-2-5)(CAM) | | | |
| GA1000CEL/CEM Series | | | | |
| Model | GA1112CEL (GA1112CEM) | GA1202CEL (GA1202CEM) | GA1302CEL (GA1302CEM) | |
| Bandwidth | 110MHz | 200MHz | 300MHz | |
| Real-time Sampling Rate | 2Gsa/s | | | |
| Storage Depth | 40K (only CEL Series); 2M (only CEM Series) | | | |
| Rise Time | < 3.5ns | < 1.7ns | | |
| Input Impedance | 1MΩ±2% // 16±3pF | | 1MΩ±2% // 20±3pF 50Ω 5vrms | |
| Time Base | 2ns-50s/div (step-by-step 1-2-5) | 1ns-50s/div (step-by-step 1-2-5) | 1ns-50s/div (step-by-step 1-2-5) | |
| Vertical Sensitivity | 2mV-5V/div (step-by-step 1-2-5) | | | |
| GA1000DAL/DEL Series | | | | |
| Model | GA1072DAL | GA1102DAL | GA1202DAL/DEL | GA1302DEL |
| Bandwidth | 70MHz | 110MHz | 200MHz | 300MHz |
| Real-time Sampling Rate | 1Gsa/s (only DAL Series); 2Gsa/s (only DEL Series) | | | |
| Storage Depth | 40Kpts | | | |
| Rise Time | < 5.8ns | < 3.5ns | < 1.7ns | |
| Input Impedance | 1MΩ±2% // 16±3pF | | 1MΩ±2% // 20±3pF 50Ω 5vrms | |
| Time Base | 2ns-50s/div | 2ns/div-50s/div (1-2-5)(Only DAL Series) 1ns/div-50s/div (1-2-5)(Only DEL Series) | | |
| Vertical Sensitivity | 2mV-10V/div (step-by-step 1-2-5) | | 2mV-5V/div (step-by-step 1-2-5) | |
| Vertical Resolution | 8 bits | | | |
| Channels | 2 | | | |
| Trigger Signal Source | CH1, CH2, EXT, EXT/5, AC LINE | | | |
| Trigger mode | Edge · Pulse · Video · Slope · Alternate | | | |
| Arithmetical operation | +, -, ×, ÷, FFT | | | |
| Digital Filtering | High pass, Low pass, Band elimination, Band pass | | | |
| Max Input Voltage | 400V (DC+AC peak, 1MΩinput impedance) | | | |
| Internal Storage | 2 groups of reference waveform, 20 groups of setups, 16 groups of waveform | | | |
| External Storage | Save and recall waveform from USB flash drive, Setups, CSV and bitmap files are supported | | | |
| Display Language | Simplified Chinese, Traditional Chinese, English, French, German, Korean, Italian, Spanish, Portuguese, Russian | | | |
| Port | USB Host, USB Device, RS-232, Pass/Fail out | | | |
| Display | TFT 7-inch (178mm)LCD 800 (horizontal)pixels × 480 (vertical)pixels | | | |
| Power Voltage | 100~240V (AC), 45~440Hz, 30VA Max | | | |

Features



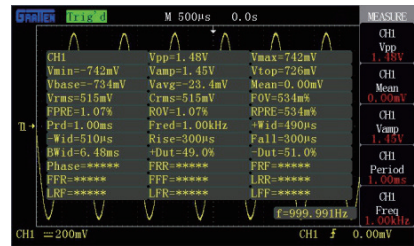
Small signal capture

Better noise function with excellent performance, accurately captures even the faint signal giving you the confidence in testing.



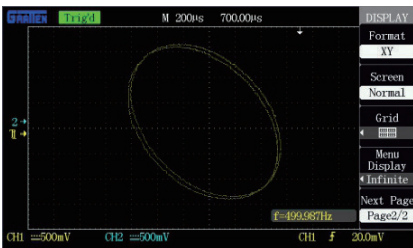
Advanced trigger settings

Various triggering options are available to capture any signal of interest with Edge, slope, video, pulse, width, alternating triggering modes. This gives you flexible observation, analysis signal types, saving the cost of testing.



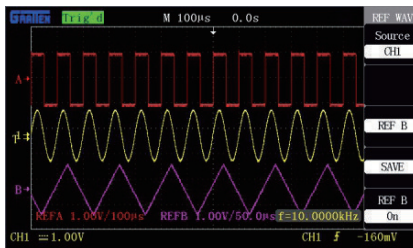
Automatic measurement function

The full featured acquisition model and 32 automatic measurement functions help user to measure captured waveform parameters more accurately. Auto measure function can eliminate user error consumedly, and users will measure parameters what they need faster and more accurately using it.



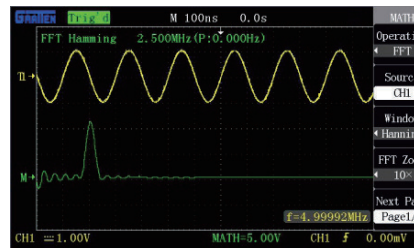
XY mode display

Use XY format to analyze phase. In this mode the data is displayed as dots.



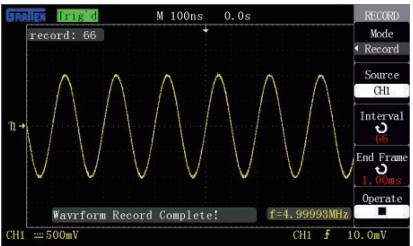
Reference waveform storage

Two reference waveforms can be stored into the internal memory and can be opened simultaneously, thus showing the sample and reference waveforms in comparison.



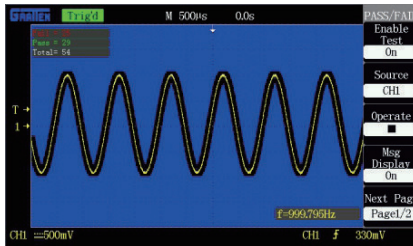
FFT split-screen display

FFT waveform and its Channel waveform can display on split screen at the same time. In split display mode, the screen is divided into two parts and each part is divided into eight vertical divisions. User can observe and analyze two waveforms simultaneously making it more clearer and convenient.



Waveform recording/playback

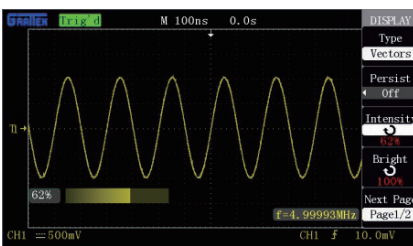
Waveform recorder can record input waveform from CH1 and CH2, with maximum record length of 1000 frames. This record behaviour can also be activated by the pass/fail test output which makes this function specially useful to capture abnormal signals in long term without keeping an eye watching it.



Pass/Fail

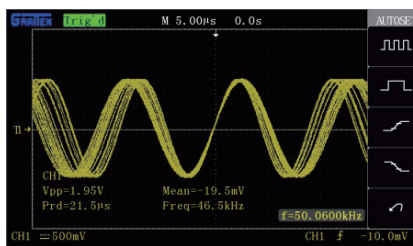
Users may use the Pass/Fail function to carry on the product test. Through a series of setups, the oscilloscope can output the test result automatically which enhanced the product production efficiency greatly.

User-friendly Design



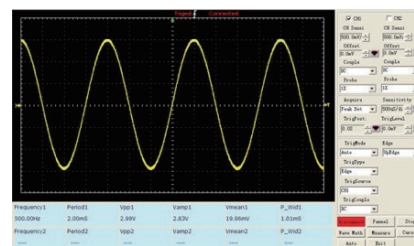
A waveform adjustable brightness

Waveform brightness adjustable to clearly observe the waveforms. The screen displays parameter value and the waveforms are visible clearly and form a broad range of viewing angle.



Signal persistence view

Display the signal path of the frequency. When acquisitions are stopped, the screen may show data from many acquisitions or the last acquisition. The past acquisition can be displayed based on 4 different time based options of (1-2-5-infinite).



PC software

Easy to use PC control software is the easiest and convenient way to remotely capture and analyzer the waveform data. This software can be compatible RS-232 and USB Device to communicate between the computer and the oscilloscope useful for remote operation. It can automatically refresh realtime waveform data, provide waveforms sampling data, read storage and printing functions.