



This system can be used with:

- All type "M" modules (M1 to M99) of Basic Electronics (LIEBA).
- All type "ED-CAM, ED-CFM and EDICOM" modules of Communications (LICOMBA).
- SAIT. Transducers and Instrumentation Trainer.
- \* Any other electronic board.

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 PRODUCTS  
 20.- ELECTRONICS

## INTRODUCTION

Data acquisition, processing and visualization in a PC via virtual instruments are common techniques in cutting-edge laboratories. This technology is widely used to integrate in only one PC all the instruments employed in a laboratory.

EDIBON Data Acquisition System/Virtual Instrumentation System with WI-FI Communication, EDAS/VIS-WF, offers a complete tool for the data acquisition and visualization through a great amount of virtual instruments included in the unit.

## GENERAL DESCRIPTION

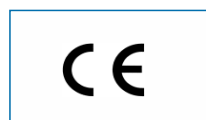
The EDAS/VIS-WF system performs all the functions required to visualize the signals connected to the unit: acquisition, conditioning, processing and visualization in the virtual instruments.

The EDAS/VIS-WF trainer offers the possibility of a remote connection of the unit and the PC through WI-FI communication.

The EDAS/VIS-WF system includes a great variety of virtual instruments that offer the user a complete range of tools to analyze any type of signal. The virtual instruments included are: oscilloscope, spectrum analyzer, function generator, voltmeter, ammeter, etc.



**ISO 9001: Quality Management**  
 (for Design, Manufacturing,  
 Commercialization and After-sales service)



**European Union Certificate**  
 (total safety)



**Certificates ISO 14001 and  
 ECO-Management and Audit Scheme**  
 (environmental management)



**Worlddidac Quality Charter  
 Certificate and  
 Worlddidac Member**

## SPECIFICACIONES

The EDAS/VIS-WF System includes hardware(DAIB, Data Acquisition Interface-Box) and software (EDAS/VIS-SOF, Data Acquisition and Virtual Instrumentation Software).

### ① DAIB. Data Acquisition Interface-Box:

Metal box. Dimensions: 310x220x 145 mm. approx.

Front panel:

**6 analog inputs.**

**4 analog outputs.**

**24 digital inputs/outputs, configurable as inputs or outputs,** with LED state indicators.

**4 digital signal switches 0-5V.**

**2 analog signal potentiometers  $\pm 12V$ .**

Main ON/OFF switch.

Inside: internal power supply of 12 and 5 V. Potentiometer.

Back panel: power supply connector. USB connector (to connect with the PC).Antenna for the WI-FI communication.

Connection cables.

### ② EDAS/VIS-SOF. Data Acquisition and Virtual Instrumentation Software:

Compatible con los sistemas operativos Windows actuales. Entorno gráfico amigable.

Compatible with current Windows operating systems. User-friendly graphical environment.

Configurable software allowing the time/frequency representation of the inputs and outputs.

Visualization of the circuits voltage on the computer screen.

It allows data storage in a file. Screens and reports of the signals can be printed at any time.

Measurement, analysis, visualization, representation and report of results.

Set of Virtual Instruments:

#### - Oscilloscope:

Maximum input voltage:  $\pm 10V$ .

The **channels can be scaled** to compare signals with different voltage levels.

"**Math Menu**" with Addition, Subtraction, Multiplication and Division operations.

#### - Function Generator:

**Signal generators:** sine, triangular, sawtooth and square.

Maximum output voltage:  $\pm 10V$ .

It includes **a chart where the output signal for each channel is shown.**

#### - Spectrum Analyzer:

Maximum voltage:  $\pm 10V$ . Digital spectrum analyzer: based on the FFT.

#### - Multimeter:

**Voltmeter.** Maximum voltage:  $\pm 10V$  RMS.

**Ammeter.** Maximum amperes: 500 mA RMS per channel.

**Manuals:** This system is supplied with the following manuals: Required Services, Assembly and Installation, Interface and Software, Starting-up, Safety, Maintenance & Practical Exercises Manuals.

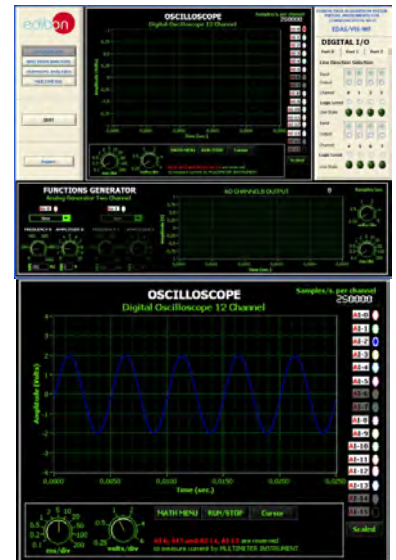
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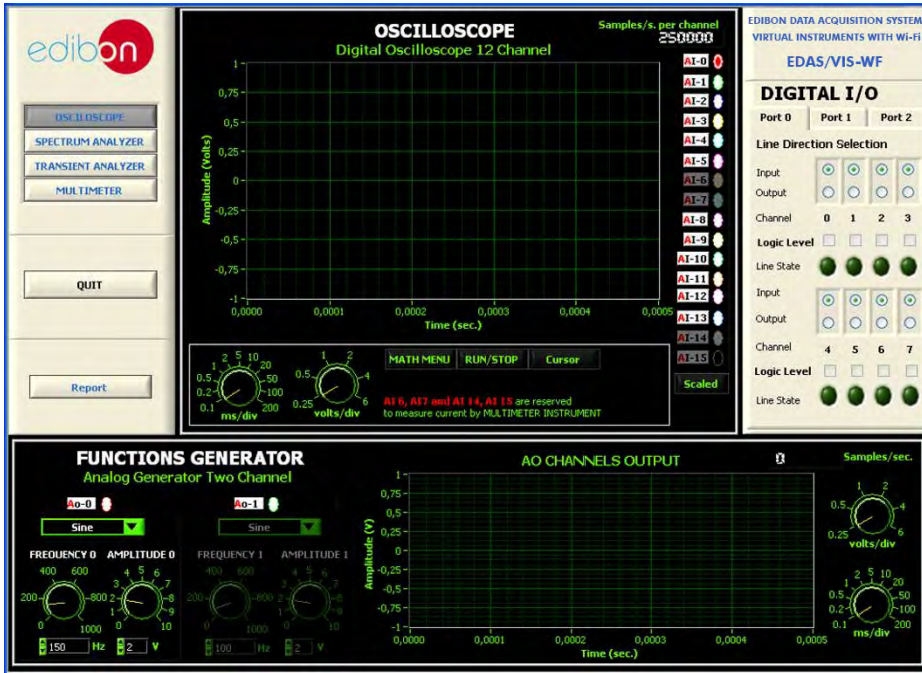
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EDAS/VIS-SOF

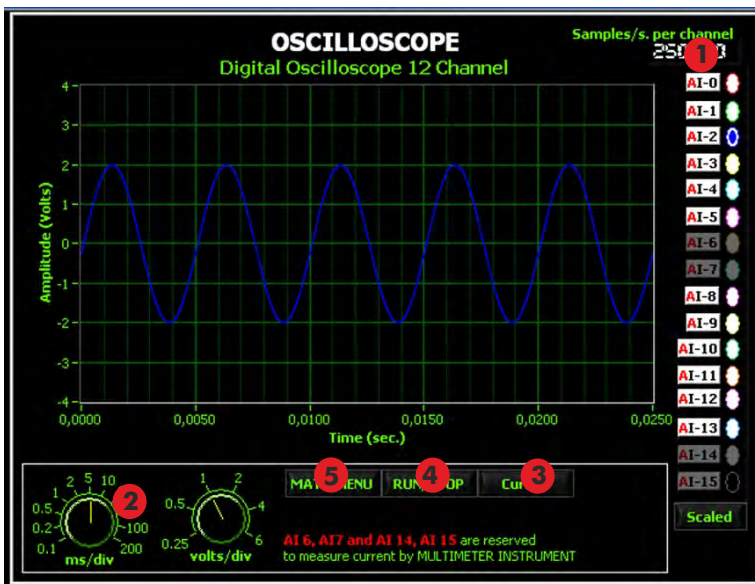
### Main Screens of the Software

Main screen

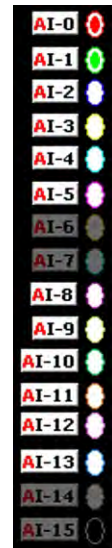


Main screen of the analog virtual instruments

Screens of the analog virtual instruments  
Oscilloscope



1 Channel selector:

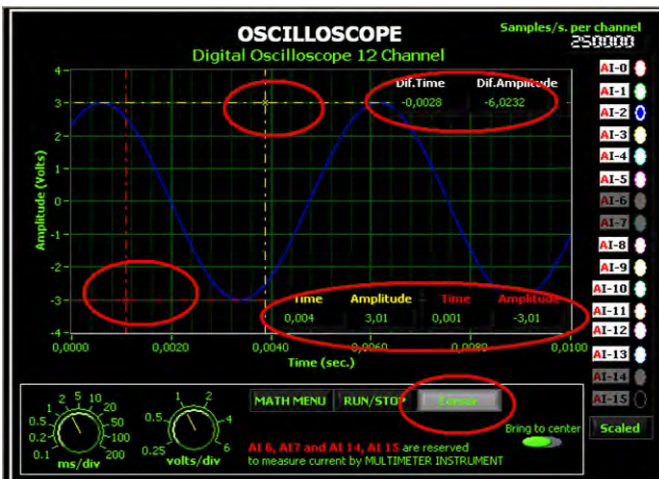


2 Controls for the axes:

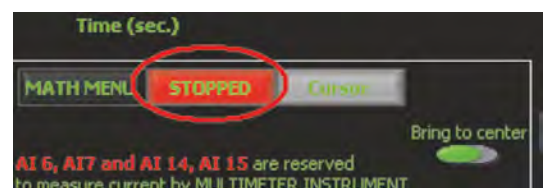


It allows the user to change the volts per division in the amplitude axis (ordinate axis) and the milliseconds per division in the time axis (abscissa axis).

3 Cursors:



4 Run/Stop:

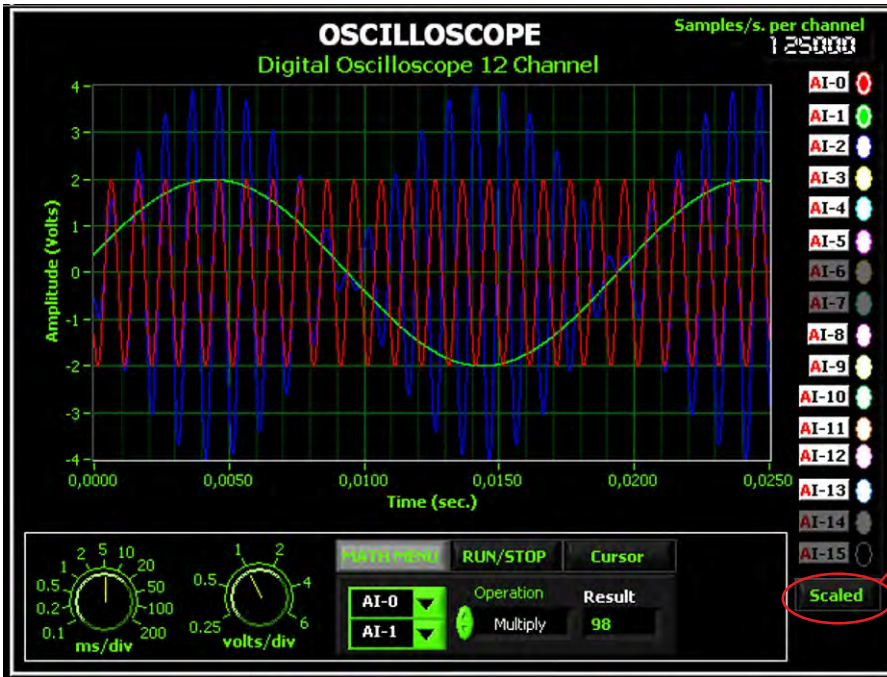


The Run/Stop button will allow the user to hold the signal of that moment in the chart till that button is pressed again; enabling a more accurate operation with the cursors.

Two cursors will appear on the oscilloscope chart when pressing the button "Cursor". Their corresponding displays, which indicate the time and voltage shift of each one and the differential between the two, will also appear. The button "Bring to center" moves the cursors to the center of the chart.

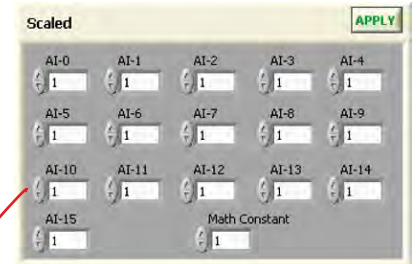
Main Screen of the Analog Virtual Instruments

5 Math menu:



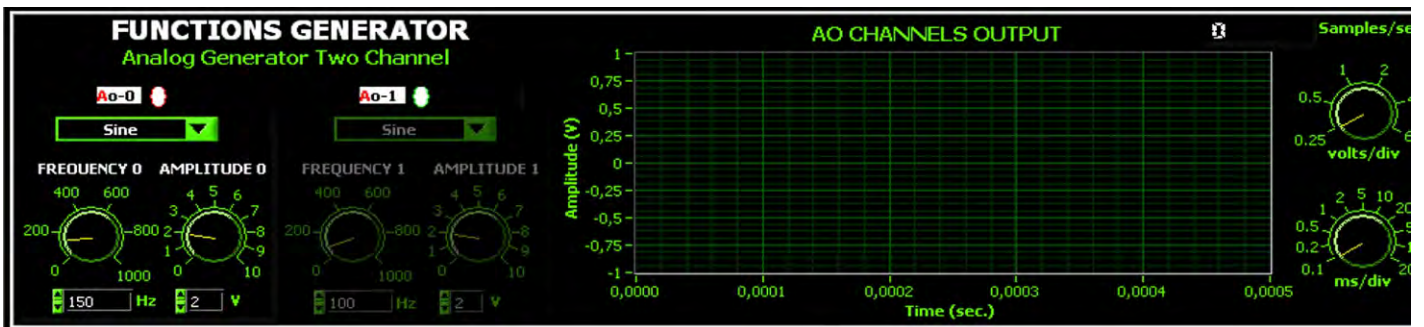
When pressing the Math Menu button, a box with two channel selectors and an operation selector to apply to the selected channels will appear. The result of the operation will be displayed in "Result" and in the chart as a blue color signal. Available operations, among any of the 12 channels of the oscilloscope, are ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION.

This screen shows an example of multiplication between the red signal (AI-0) and green signal (AI-1), being the blue signal of the graph the result of the operation.



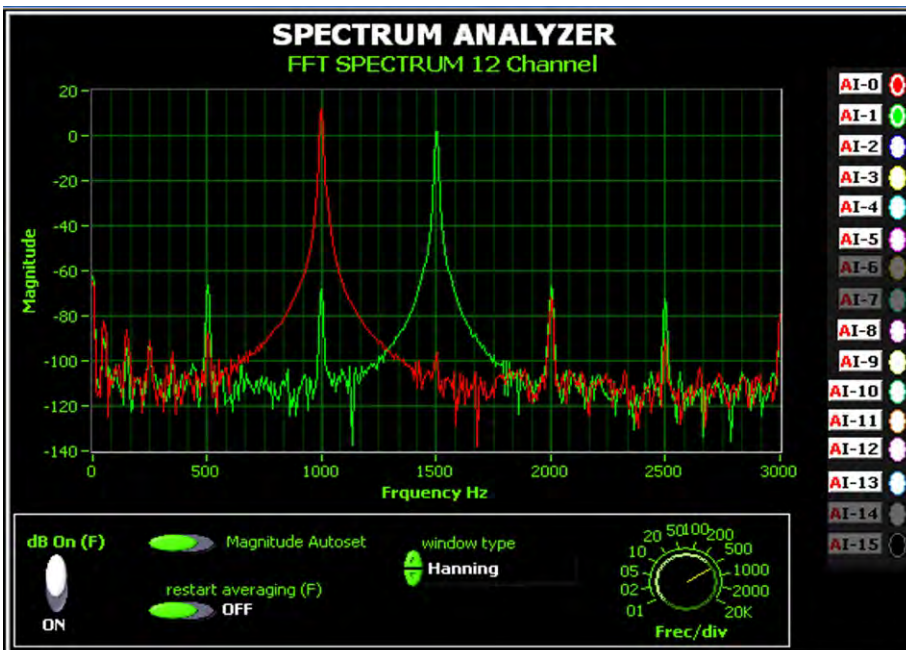
This instrument allows the user to scale each channel independently. Likewise, the user can also scale the result signal of the mathematical operation.

Functions generator



It has two channels and four types of functions.

Spectrum analyzer



Digital spectrum analyzer: based in FFT, Fast Fourier Transform. It allows the user to change the frequency per division of the abscissa axis with a control located under the chart, display magnitude in decibels, auto-scale the magnitude and apply several types of windows, (Nothing, Hanning, Hamming, Blackman-Harris, exact Blackman, Blackman, flat top, 4 term B-Harris, 7 Term B-Harris or low sidelobe).

Multimeter



Voltmeter



Ammeter

## REQUIRED SERVICES

- Electrical supply: single phase, 220 V./50 Hz. or 110 V./60 Hz.
- Computer.

## DIMENSIONS AND WEIGHTS

EDAS/VIS-WF:

- Dimensions: 310 x 220 x 145 mm. approx.  
(12,20 x 8,66 x 5,70 inches approx.).
- Weight: 2 Kg. approx.  
(4 pounds approx.).

\* Specifications subject to change without previous notice, due to the convenience of improvement of the product.



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