# 40 to 150 MHz digital and mixed oscilloscopes



### Are your signals slow, non repetitive, unstable? If so, you really do need to add digital technology to your equipment.

- A choice between 100% digital or mixed (digital + analog) technology
- Up to 200 Msamples per second for single-shot signals
- Up to 50 Gsamples per second for repetitive signals
- 2 or 4 input channels and 8 displayed curves (OX 2000)
- FFT functions and harmonics as standard (except for OX 8040)
- Mobile cursors and 17 automatic measurements
- Dynamic input ranges from 1 mV to 20 V per div.
- Everything you need to communicate with a PC or directly with a printer



The choice of professionals www.motralec.com / service-commercial@motralec.com / 01.39.97.65.10

## OX 2000 - OX 8100 - OX 8050 - OX 8040: 40 to 150 MHz digital and mixed oscilloscopes

#### The advantages of analog The additional advantages of digital

With 80% of signals being repetitive, analog processing enables the signals to be displayed in real time and in their most natural state. Display offers an excellent quality of trace and contrast.

At the same time, digital processing enables - among other things -events prior to triggering to be displayed and memorised. Moreover, with the ETS (Equivalent Time Sampling) digital mode, a sampling frequency can be obtained which is very high and inaccessible in single-shot digitalisation.

By combining digital and analog, you can study very

slow phenomena (variations in temperature, battery load, etc.), unique phenomena, but also repetitive and quick signals by choosing the most suitable mode.





Analog representation: frequency modulation

Digital representation: interference just before triggering

#### Internal and external memory capacity

With 16,000 samples per channel, the OX 8000 family performs outstandingly in its market segment.

For its part, the OX 2000 has an adjustable acquisition depth of between 1,000 and 10,000 samples. In addition to its internal 40 Kbytes, it is equipped with a PCMCIA reader which enables up to 1 Mbyte of memory to be added. This storage also enables acquisitions carried out on site to be saved or, conversely, references to be produced in a laboratory which will make quick on-site diagnosis possible.

On the OX 2000, possibility of extending the memory using a PCM-CIA card (from 128 Kbytes to 1 Mbyte)



#### Dual time base

This function, available with the OX 2000 and OX 8100, enables a part of the reference signal to be zoomed while at the same time keeping the whole recording on the

screen. You can display up to 8 curves on an OX 2000.



On the OX 2000, screen display of 8 curves

# FFT and harmonic analysis as standard

From the outset, the OX 2000, OX 8100 and OX 8050 have the FFT function - designed for studying the frequential decomposition of a signal - built into them. On top of that, harmonic analysis is added to the OX 8100 and OX 8050. The latter representation is richer than a



traditional one. Not limited with regard to the frequency of the fundamental, it functions in particular with MLI-type signals.

Displaying the signal and its FFT



Harmonic analysis



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#### **SCPI** programming

Metrix's OX 2000, as well as its mixed oscilloscopes, are entirely programmable to the SCPI (Standard Command for Programmable Instruments) standard. They have RS 232 and IEEE 488 interfaces (depending on the models) for remote control. You can also take advantage of all the aids provided for conducting analyses, for documentation and presentation which are accessible in LabView and LabWindows CVI\* thanks to the available drivers.

#### **Printer compatibility**

All of these appliances have a number of drivers as standard. Therefore it is possible, for no additional cost, to quickly copy a screen directly onto a printer. This operation is all the easier when they are equipped with a digital link which automatically recognises the connected peripheral.

#### 4 top-speed channels

Adding the OX 2000 to the equipment you already have means acquiring a wholly digital oscilloscope with 4 real channels, whose high acquisition speed makes it possible to perform tests on complex signals up to the full bandwidth of 150 MHz.



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#### A large number of digital functions

Besides their 5 cursors, Metrix digital oscilloscopes offer up to 17 automatic measurements.

Their "GLITCH" mode for capturing interference, or "ENVELOPE" mode for memorising the minimum and



maximum of several successive acquisitions, enable complex signals to be displayed.

Cursors and automatic phase measurements



#### A single software package for the whole range

SX-Metro makes it possible to import curves stored in the oscilloscope's memory, image files or to download a configuration to the appliance via the RS 232 or IEEE interfaces. You can then analyse these signals by means of mathematical processing, use the results to put them

into your Word® or Excel® reports, or simply archive this data.





SX-METRO multi-window display

#### Maximum legibility

In order to make it easier to use, the OX 2000 is fitted with a VGA output, which enables all the phenomena to be observed on a largesize computer colour screen. In this way, the curves can be identified more quickly.

Direct connection of an OX 2000 and a VGA screen



#### Triggering on complex signals

In addition to the traditional triggering modes, the appliances have a meter enabling the TV line chosen to be displayed directly; this is the case for all the different existing standards (except for OX 8040).

The OX 2000 too offers various triggering modes which are sophisticated and sui-

window, etc.



Everything required for video analysis



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