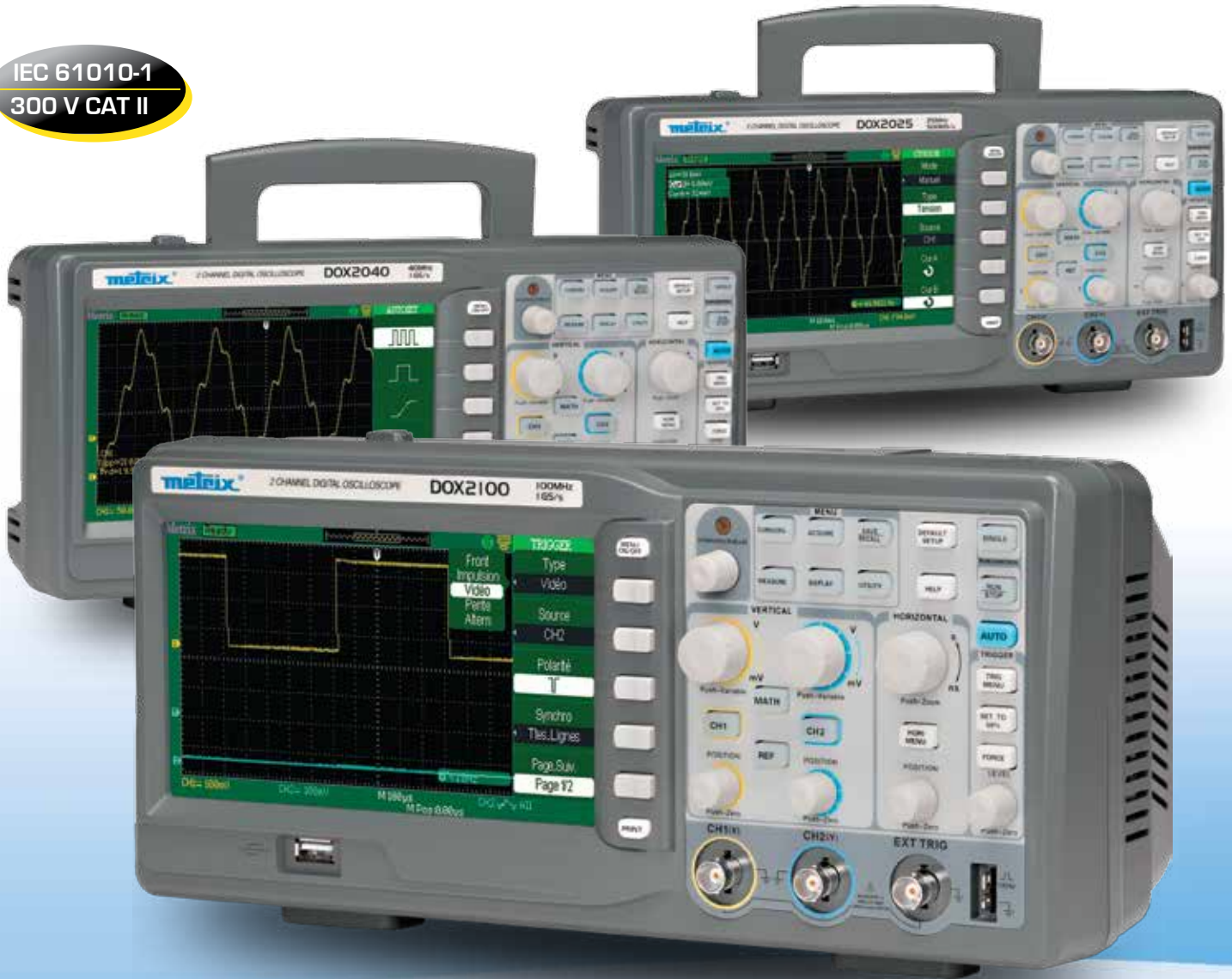


TWO-CHANNEL DIGITAL OSCILLOSCOPES

IEC 61010-1
300 V CAT II



**Complete, simple, and economical,
DOX desktop oscilloscopes process all signals**

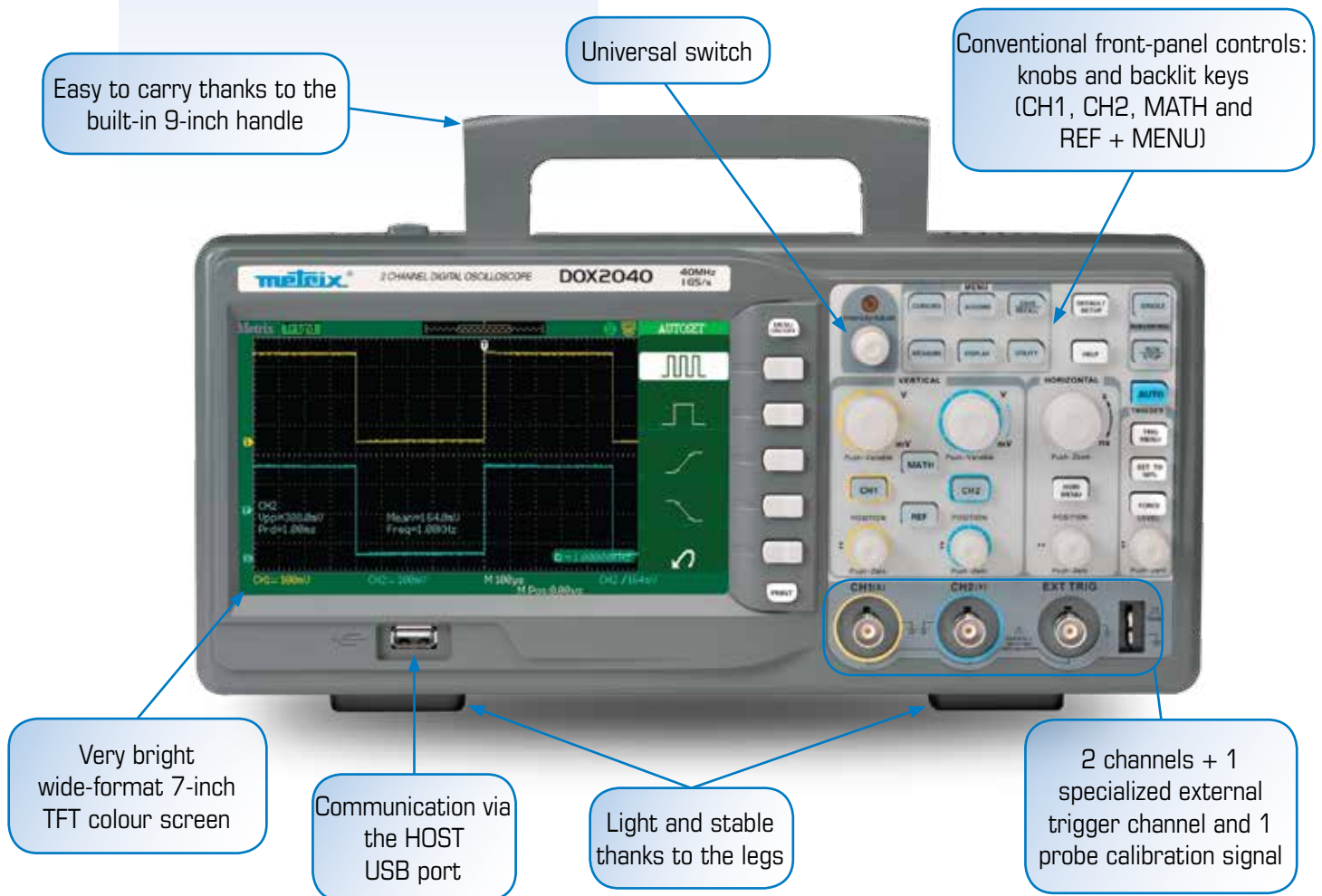
- **High Performance** and many acquisition and analysis functions:
 - Maximum sampling rate **up to 1 Gs/s in single-shot and up to 50Gs/s in ETS**
 - **Choice of 3 acquisition levels**, in **2 modes**, Real Time and Equivalent Time
 - Acquisition memory depth from **32k to 2M points to optimize your analyses**
 - Vertical sensitivity from **2mV/div. to 10V/div. in 12 ranges**, horizontal sensitivity from **2.5ns to 50s/div**
 - 5 trigger modes: edge, pulse, video, slope, and alternate
- **FSimple MATH functions (+, -, x, /) and "real time" FFT function** with simultaneous display of the traces
- **Optimized signal analysis:**
 - Selection of programmable digital filters
 - Slow-signal recorder (ROLL > 100ms) on 6Mpoints

Ergonomics

Very simple to use, the oscilloscopes of the series DOX2000 have a large display unit, in horizontal on 18 div in full screen. It lets you customize the display: choice of normal or persistent display, YT or XY format, adjustment of the colours, of the graticule, of the brightness, of the contrast, etc.

You can choose among 5 languages for the menus (French, English, Spanish, Italian, German). To save energy; switching on and off take less than 10s.

The «soft keys», icons to the right of the screen, are intuitive and give immediate access to the type of signal you want to display.



The best performance for money

Series DOX2000 oscilloscopes have 2MB of extended memory and many acquisition and analysis modes with advanced triggering functions. Thanks to bandwidths from 25MHz to 100MHz in 2 channels, a sampling rate of 2Gs/s, and a waveform memory having a maximum capacity of 1Mpts/channel (2Mpts in interlaced mode), the DOX2000 brings you the best value for money on the market of oscilloscopes with protection earths.

The display unit lets you view 32 measurements simultaneously with the measurement dashboard. The analysis is facilitated by the 32 standard automatic measurements you can select, or refine with measurement cursors that can be tied to the trace or not as desired. The extensive range of advanced timing parameters allows comparison between the

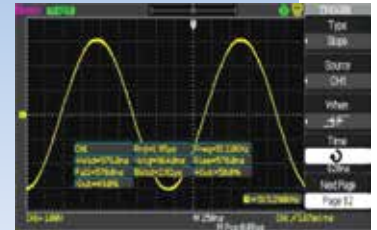
signals in two distinct channels and a zoom. For a more sophisticated analysis, the DOX2000 have 5 mathematical functions for a real time analysis on 2 different displays: addition, subtraction, multiplication, division, and FFT.

Instantaneous display of the measurement result

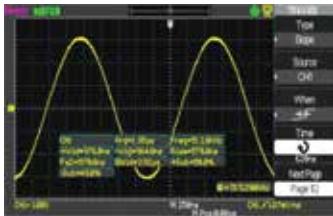
The built-in pass/fail mask test allows rapid identification of problems in a signal. This Pass/Fail function can be used to track the evolution of a signal. It can for example be used to determine whether or not the input signal remains within a specified profile.

Advanced measurement functions

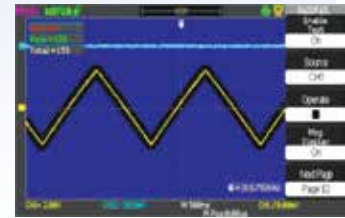
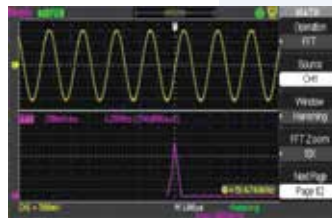
- **Auto-calibration** is a procedure used to optimize the accuracy of the system of acquisition of channels CH1 and CH2
- The **"Pass/Fail"** function, which compares the real-time signal to a predefined profile (MASK) and instantaneously indicates its Pass or Fail status
- The **Record** mode of the Pass/Fail function
 - records signals over a maximum recording length of 2,500 points
 - can be triggered by an output of the Pass/Fail test signal, and so record the signals for long periods
- The **ROLL recorder** mode allows continuous real-time surveillance of slow signals. Time base ranges > 100ms. The internal recording memory depth of this mode is 6Mpoints maximum.



Advanced performance for a refined analysis (acquisition depth and zoom selection from among 32 automatic measurements).



The FFT function can be displayed in four different windows and on two different vertical scales to provide a pertinent view of the frequency domain.



Communication

On the front panel, the user has direct access to the HOST USB port, to optimize the recording memory capacity.

The USB port on the back is used for communication with a PC running associated software for control, tests, and the recovery of trace files and screen grabs. These oscilloscopes have 20 setups and 20 waveforms in internal memory.

For greater security, there is a locking system (**Kensington** (type?) lock). There is a **security slot** to receive a plug-in padlock. This means that the device can be immobilized.



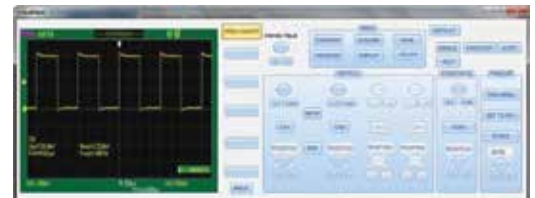
Planned with a Kensington (type?) anti-theft system

USB port to communicate with a PC

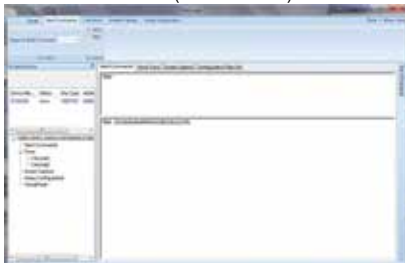
EASYSCOPE PC software

With **Easyscope**, the user accesses many complementary functions.

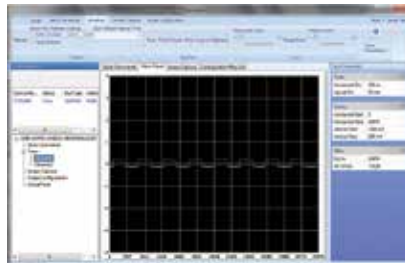
Test remote commands - VIRTUAL PANEL



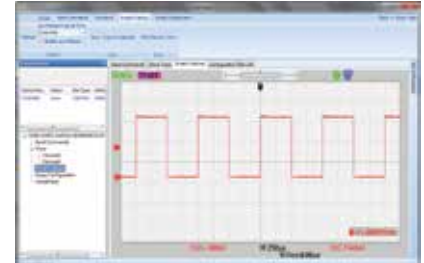
Send programming commands
SEND COMMAND (SCPI format)



Recover files - TRACES



Recover screen grabs - SCREEN CAPTURE (BMP format)



Technical characteristics	DOX2025	DOX2040 / DOX2100
HUMAN-MACHINE INTERFACE		
Type of display	7-inch TFT LCD colour screen (resolution 480x234)/Brightness and contrast adjustments	
Display of the traces on screen	Trace zone, 8x18 divisions/2 traces + reference + Maths function - Complete graticule or borders Display mode - Samples or Vectors with interpolation, or Persistence Mode	
Commands	Usual direct commands by buttons/knobs on front panel/System of menus on right side of the screen with selection by 5 buttons next to them - Command "Menus On/Off" and print	
Choice of language	By menu, 5 languages (FR/EN/DE/IT/ES), on-line help in English	
VERTICAL DEVIATION/DEFLECTION		
Bandwidth	25 MHz	40 MHz/100 MHz 20 MHz bandwidth limiter
Number of channels	2 channels, common earths	
Impedance	1M Ω /18 pF and External Trig channel	
Display of the traces	Channel number, earth reference indicator, and trace in the colour of the channel	
Maximum input voltage	\pm 300 Vc-c (without probe)	
Vertical sensitivity	12 ranges, from 2mV to 10V/div - Basic accuracy \pm 3%	
Rise time	< 14 ns	< 8 ns (DOX2040) <3.5 ns (DOX2100)
Compensated probe factors	1/5/10/50/100/500/1.000	
HORIZONTAL DEVIATION/DEFLECTION		
Sweep rate	De 25 ns/div. à 50 s/div. (Oscilloscope mode)	De 2.5 ns/div. à 50 s/div. (Oscilloscope mode)
Scan	from 100ms/div. to 50s/div. (Recorder mode - Scan)	
Horizontal zoom	YES	
TRIGGERING		
Sources / Modes	CH1, CH2, Ext, Ext/5, mains /Automatic, Triggered, Single - XY	
Roll mode	from 100ms/div. to 50s/div.	
Type	Front, pulse width (20ns-10s), video (PAL, SECAM, NTSC), slope, alternate	
Coupling	AC, DC, HFR (HF rejection), LFR (LF rejection)	
DIGITAL MEMORY		
Maximum sampling	Single = 250 Ms/s (2 channels), 500 Ms/s (one channel) Repetitive = 10 Gs/s	Single = 500 Ms/s (2 channels), 1 Gs/s (one channel) Repetitive = 50 Gs/s
Vertical resolution	8 bits (vertical resolution 0.4%)	
Memory depth	Max depth = 32K points «Unlimited» storage capacity (USB key)	Max depth = 2M points (long MEM) «Unlimited» storage capacity (USB key)
User memory	2MB to store files: trace, text, configuration, math functions, print files, image files, etc.	
File management	Trace files (proprietary format and spreadsheet-compatible «.CSV» format) for the signals/Complete configuration files of the instrument/Screen grab files (Windows-compatible «BMP» format)	
PEAK DETECT mode (capture of transients)	Minimum duration of events = 10ns	
Display modes	Dots or vectors Persistence modes (1s, 2s, 5s, 10s, 20s, or infinite) or Averaging (factor from 4 to 256)	
XY mode	YES	
OTHER FUNCTIONS		
AUTOSET	AUTO Adjustment of the amplitude, the time base, and the triggering position	
MATH functions on the channels	Trace calculated in «real time»: CH1 and CH2: addition, subtraction, multiplication, division	
FFT analyzer	FFT calculated on 1024 points/Simultaneous display of trace + FFT/4 windows (rectangle, Hamming, Hanning, Blackman)	
Manual measurement cursors	Manual, tracking, and automatic modes	
PASS/FAIL	Pass/Fail test using a limit envelope	
RECORDER	Slow signal recording mode >100ms (ROLL, 6M points)	
Automatic measurements	32 time or level measurements	
Probe calibration signal	YES	
Warranty	3 years	

Delivery condition:

- 1 DSO digital oscilloscope with European power cord,
- 2 probes, switchable 1/1 and 1/10 voltage attenuation,
- 1 USB cord for communication,
- 1 CD with operating instructions, EASYSCOPE software
- Tutorial
- 1 getting started guide (paper)

To order:

DOX2025	2x25MHz Digital Oscilloscope
DOX2040	2x40MHz Digital Oscilloscope
DOX2100	2x100MHz Digital Oscilloscope



Optional accessories:

MTX1032-B	Differential probe, 2x30MHz, banana jack inputs
MTX1032-C	Differential probe, 2x50MHz BNC inputs
MTX9030-Z	Differential probe, 1x30MHz, self-contained, BNC
HX0074	Signal generator demonstrator board kit

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