MTX 3252
MTX 3352
MTX 3240
MTX 3250

MTX COMPACT

Oscilloscope-Analyzers MTX 3252 - MTX 3352
Generator-Measurer MTX 3240
Multimeter-Analyzer MTX 3250

So smart, you can choose them just for their looks!

- An innovative ergonomic design for unmatched comfort and user-efficiency; “Windows-like” environment and mouse control for the oscilloscope-analyzers
- A light and compact case having operations zones which are least twice as large as those of traditional instruments
- A display with see-it-to-believe-it dimensions and legibility; oscilloscope-analyzers: LCD colour, pivoting screen
- Technological alterations associating new, yet necessary features
- Digital calibration at 100% for controlled accuracy
- Completely programmable models per SCPI protocol
- Optional Ethernet network interface
- Assets that even appeal to the world of industry and technical education

CHAUVIN ARNOUX

The choice of professionals

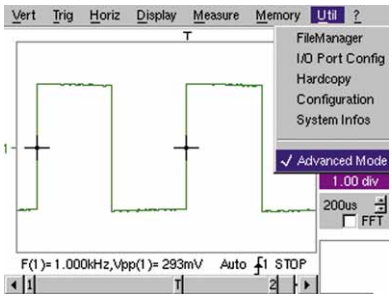
MTX 3252 and MTX 3352: 60 and 100 MHz oscilloscope-analyzers

Expert oscilloscopes for personalised communications...

Once the screen of the oscilloscope is up, communications are operative between the unit and the user who chooses both its mode and its control style.

- Mode:

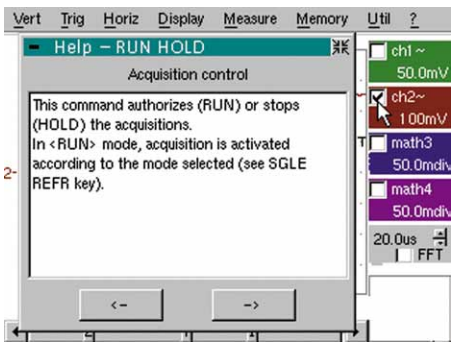
The complex functions may be “hidden”. Easily accessed using “Advanced Mode”, they do not disrupt navigation, or analysis, in standard mode.



- Control style:

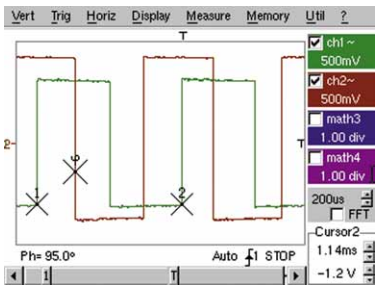
1- In “keyboard” use, you achieve record efficiency since twenty keys and the encoder enable direct access and adjustments on a very simplified front panel.

Furthermore, on-line help is available, at all times, for each function, and in five languages using the [?] key.

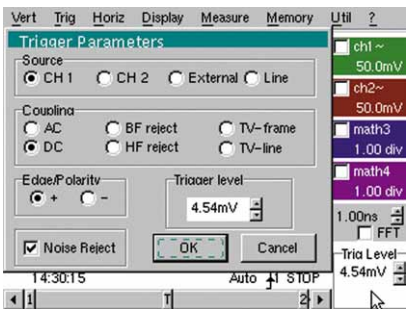


2 - Using the “mouse” , you pull down menus in a “windows-like” users-friendly environment.

Oscilloscopes, high-performance instruments, are reputed as hard to access for neophytes or occasional users. Thanks to “Windows-like” ergonomics and its universal utilisation mode, unique for this category of instrument, use of the MTX 3252 and MTX 3352 is particularly accessible. The mouse is used to pull down the menus and navigate with ease; it is also used for direct and effective action on the graphic elements (cursors, trigger, trace position...). Cursors may be placed at any time on the signals to perform measurements as precise as they are varied, such as, for example, the phase shift between two signals. “Magnetised” to the curve, the encoder or the mouse moves them in one horizontal movement.



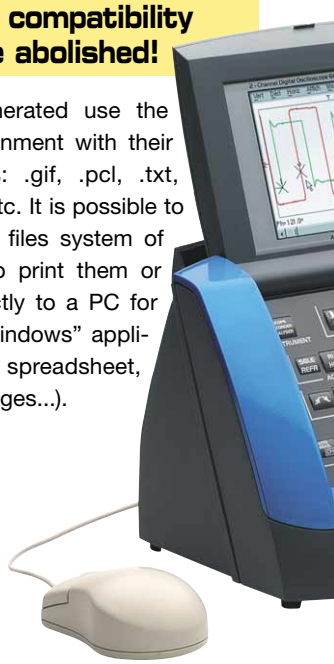
Genuine lists of the available functions, the menus are also used as learning tools and the “Pop-Up” windows present all of the adjustments at a glance.



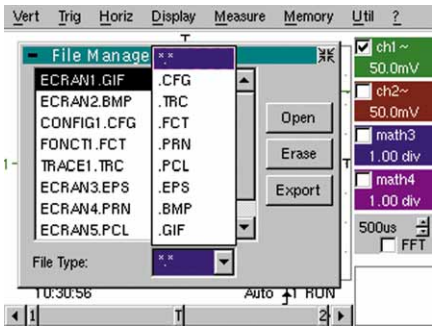
- The MTX 3352 and 3252 oscilloscopes are fitted standard with an RS232 link with a speed of 230 kbauds and the Centronics interface, essential to communicate with a printer or a PC.

- An optional Ethernet communications interface is also available.

"Windows Like" environment: guaranteed compatibility and distance abolished!



- The files generated use the “Windows” environment with their standard formats: .gif, .pcl, .txt, .bmp, .eps, .prn etc. It is possible to save them in the files system of the instrument, to print them or export them directly to a PC for analysis using “Windows” applications (reports, spreadsheet, printable files, images...).



- A state-of-the-art device, the Ethernet network interface and the HTML server can be used for further enhancements (options): Using only the Ethernet address of the unit, with no additional software, the user can take charge of the oscilloscope(s) installed in the network. This can solve certain remote management problems in industrial environments, but also in teaching. Displaying these signals, controlling the instrument, sending messages to the different users, downloading curves, results or configurations. All operations and manipulations are accessible remotely, still with 100% “Windows” compatibility.

Light, compact and fitted with a handle, the instruments can also accompany professionals who need to move around as part of their jobs. A “field pack” can even be used for measurements and handling of the oscilloscope without removing it.

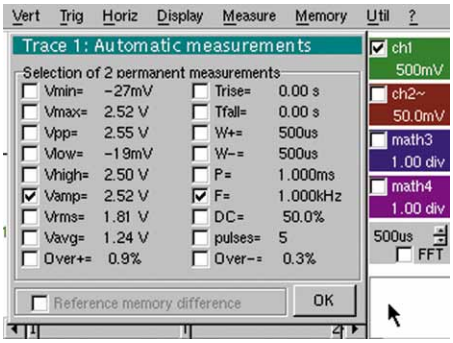
Performance in everyone's grasp

- The exceptional vertical dynamic of 2.5 mV to 100 V per division is related to scaling on channels with readout of the physical unit of the signal and to a performant “Autoset” selectable per channel.

- The mathematics editor is used to display in real time on screen the result of 4 customised functions using acquired signals or in complete simulation.

- Thanks to its 50,000 count memory, reference in this category, its horizontal trace zoom, and unique vertical “winzoom”, it can enlarge by a factor of 200, while displaying only the true points of acquisition. You can then take full advantage of its maximum sampling speed of 20 Gsam/s and its time base performance (1 ns at 200 s per division).

Remember that a memory depth 20 times larger than other oscilloscopes means a recording time 20 times longer or a sampling frequency 20 times greater!



- The window of automatic measurements displays simultaneously the 18 parameters of the signal.
For precise and unambiguous analysis, 2 markers display the portion of the signal on which the first automatic measurement selected was performed; you can then select another zone by framing it using the manual cursors.

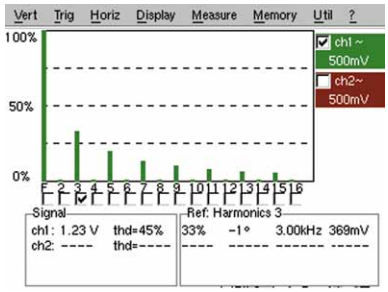
- The fast comparison of two signals could not be simpler: after pressing the key you compare directly the 2 traces and by checking “reference difference” you measure the differences of all the 18 parameters of the new signal.

Integrated instruments for a "global" tool

Originally a tool for displaying signals, the oscilloscope has become a true analytical tool.

- Thus, the MTX 3352 and 3252 are capable of real time FFT and multichannel analysis of the signal.

- For users working more in the electrical engineering field, the analysis of 31-rank multichannel harmonics is proposed as an option.



- Finally, for all those who monitor the variations of physical or mechanical phenomena over time, a genuine fast digital logger can be integrated into the instrument, in the form of a software module.

SPECIFICATIONS:

	MTX 3252	MTX 3352
MAN -MACHINE INTERFACE		
Display	LCD monochrome or colour 5”7 – Backlit CCFL	
N°. of curves on screen	4 curves + 4 references	
Controls	20 direct short-cut keys + 1 encoder + 1 "integrated help" key Windows-like menus – 100% control accessible via mouse Choice of language by menu (FR/ENG/SP/IT/GE)	
VERTICAL		
Bandwidth	60 MHz	100 MHz
N°. channels	2 class 1 channels– Cat. II 300 V	
Sensitivity	2.5 mV –100 V/div + vertical "Winzoom" expansion	
HORIZONTAL		
Sweep speed	from 1 ns to 200 s/div	
TRIGGERING	Auto, Normal, Single shot – CH1, CH2, EXT, LINE	
DIGITAL MEMORY		
Max. sampling	Repetitive = 20 Gsam/s – Single shot = 100 Me/s	
Capacity	50,000 counts – 4 references + 4 50-k curves	
MODES	GLITCH, ENVELOPE, AVERAGING, XY DIGITAL	
OTHER FUNCTIONS	Complete Autoset, FFT and "MATH", cursors V / T / Phase, 18 automatic measurements	
LOGGER (option)		
Acquisition rate	from 10 µs to 10 min sampling interval	
Analysis	Direct time stamping, conversion and physical quantity units, measurement by cursor and event search, files may be analysed on standard spreadsheets	
HARMONIC ANALYSER (option)		
Extent of analysis	31 ranks simultaneously on 1 or 2 channels	
Analysis	Permanent display: total RMS value and THD – Selected Rank: %F, phase, freq., Vrms	
Interfaces	RS232C, Centronics (standard) Ethernet, HTML Server (options)	
DIMENSIONS: (H X L X W) – Weight	170 x 270 x 190 – 2.5 kg	

Accessories and ordering information:

The oscilloscope is delivered with 1 European mains power cable, 1 set of leads, 1 mouse pad, 1 mouse, 1 CD-ROM. Guarantee: 3 years

To order

MTX3252-M	Digital oscilloscope 2 X 60 MHz, B & W
MTX3252-C	Digital oscilloscope 2 X 60 MHz, Colour
MTX3352-M	Digital oscilloscope 2 X 100 MHz, B & W
MTX3352-C	Digital oscilloscope 2 X 100 MHz, Colour
HX0024	Field Transport Pack
MTX3252E-M	Digital oscilloscope 2 X 60MHz, B & W with Ethernet network link
MTX3252E-C	Digital oscilloscope 2 X 60 MHz, Colour with Ethernet network link
MTX3352E-M	Digital oscilloscope 2 X 100 MHz, B & W with Ethernet network link
MTX3352E-C	Digital oscilloscope 2 X 100 MHz, Colour
HX0028	Harmonics analysis option

MTX 3240: the stand-alone generator-measurer

A generator with innovative features

Its advanced technology allows each user to benefit from its new, yet essential functions:

- Frequency settings - guarantees stability to the nearest digit, and intelligent accelerator - with automatic range change for frequency

- Automatic range changing optimized for "LEVEL and OFFSET" AMPL LEVEL amplitude
- Duty cycle adjustable without varying or dividing the frequency
- "LOGIC" function LOGIC HIGH LOGIC LOW for a fast and simple answer to generating logic signals with directly adjustable thresholds
- A robust generator with protected 60 VDC / 40 VAC outputs

Associated features

Another advantage of these innovations: full functionality for the user's investment. The MTX 3240's associated features give it stand-alone implementation which means that, when simply testing settings, one can avoid the systematic use of an oscilloscope or multimeter.

- Frequency control loop and display
- AMPLITUDE Vpp (peak/peak) and OFFSET VDC check and display
- Duty cycle check and display

The MTX 3240 is also a rational investment for it is also a 100 MHz frequency meter (Cat. I, 300 V), which means that it is not necessary to purchase an instrument that one doesn't use that often.

And in order to meet the user's expectations of automated systems in an economical way, a 100% programmable version of this generator exists via a rapid, SCPI-compatible link.

MTX 3240 with built-in frequency meter

SPECIFICATIONS

Display	Frequency range	Signal forms	Outputs	Sweep	External frequency meter	Power supply	Dimensions H x L x W	Interface MTX 3240-P
LCD 50 x 140 mm Main display 20 mm 4 variables at a time	0.1 Hz to 5.1 MHz 7 ranges + fine-tuning to the nearest digit + accelerator Accuracy: 0.05 %	Sine, square, triangle, pulse, ramp, TTL, LOGIC Distortion < 0.5 %	1) Main: up to 20 Vpp open circuit, automatic range 2) TTL Protection: overload 60 VDC / 40 VAC	LIN or LOG CONTINU 1: 50 Min 10 ms to 10 s Internal or external	0.1 Hz to 100 MHz Accuracy: 0.05 % Input 300V, Cat. I Automatic responsiveness	115 V - 230 V - 240 V 50 / 60 Hz 300 V, Cat. II	170 x 270 x 190 mm Weight: 2.8 kg	optical RS232

Accessories and information for ordering

Standards: safety as per IEC 61010-1, 2001 and EMC as per NF 61326-1, 1998
Warrantee: 3 years
The MTX 3240 generator is supplied with a mains power cable, a user's manual and an interactive presentation of the instrument on CD-ROM.

To order

MTX3240 Functions Generator 5.1 MHz
MTX3240-P Functions Generator 5.1 MHz + RS232
Supplied with an RS232 optical link, a programming manual and Labwindows / Labview drivers on CD-ROM.

MTX 3250: the built-in multimeter-analyzer

A multimeter at the leading edge of modes

It all begins with a connection reduced to 3 terminals which limits maneuvers and errors and allows complete current "AUTORANGING" between 50 µA and 20 A. Then with its 3-way display, the MTX 3250 gives measurement combinations that meet current applications simply and efficiently, as for example, bandwidth measurement (attenuation in dB and frequency display).

- For metrology control, the "SPEC" Mode calculates and displays the instrument's uncertainties according to the ranges and the measured value

- Mode MATH gives a direct reading of the measured quantity, as well as the corresponding physical unit
- "Surveillance" Mode SURV records the minima and maxima so to catch and date faults
- "RELATIVE" Mode, expressed in absolute, percentage or dB (ratio), makes direct operations

Associated features

Like the generator of the same family, the MTX multimeter is an exceptional, multifunctional device. Thanks to its signal analysis, there is no need for the user to use other instruments (an oscilloscope for example) when verifying made measurements.

Impossible to make errors, which are so frequent and yet often ignored, due to very high crest factor. In fact, the MTX 3250 measures rapid peaks at 500 µs non-stop and lets you know when it finds a fault. Better still, when "AUTO PEAK" Mode is validated, the multimeter automatically switches to the range best suited to the type of signal measured. Since crest factor is displayed, one can also make an initial quantitative diagnosis on signals.

The MTX 3250 is a rational investment for it is also a frequency meter, a thermometer and even a logger, which means that it is not necessary to purchase instruments that one doesn't use that often. Also for recording up to 4 channels and 12 parameters in the laboratory, the "data logger" version of this multi-purpose instrument offer high-performance service with its associated PC software.

Temperature is measured directly starting from Pt 100 or Pt 1000, and in the same way that frequency is measured, up to 1 MHz, with period and duty cycle.

And in order to better meet the users' expectations of automated systems, a 100% programmable version of this instrument exists via a SCPI-compatible, RS232 optical link at 57,600 bauds.

SPECIFICATIONS

Display	VDC ranges and basic accuracy	VAC ranges and basic accuracy Bandwidth	IDC ranges and basic accuracy	IAC ranges and accuracy Bandwidth	Ohm ranges and basic accuracy	Dimensions H x L x W	Interface MTX 3250-P MTX 3250-A
50,000 counts LCD 50 x 140 mm Backlit 3-way display	500 mV - 500 V & 1000 V 0.08%L+3D	500 mV - 600 V 0.5%R + 3D (50,000 counts) 100 kHz	500 µA - 500 mA & 10 A 0.2%R + 3D	5 µA – 500 mA & 10A 0.5%R + 3D 10 kHz	500 Ω - 50 MΩ 0.1%L + 3D	170 x 270 x 190 mm Weight: 2.3 kg	optical RS232 57,600 bauds

- Other measurements: continuity test, diode test, 50 nF – 50 mF capacitance, frequency 1 Hz -1 MHz, duty cycle 0.01% to 100%, temperature - 200 to + 800°C, pt 100 and pt 1000.
- PEAK HOLD function: Pk+/ -500 µs on I & V, crest factor
- Additional features: SURV = dated MIN/MAX / MATH = dB, dBm, ax+b / OFFSET (Offset, nil, delta%) / Data HOLD & Auto HOLD
- Additional features on the MTX 3250-P: PRINT, 0.5 s to 10 h rate, clock and calendar, RS232 optical drive
- Additional features on the MTX 3250-A: DATA LOGGER with 1,500 stored measurements, 1 or 3 values at a time.

Accessories and information for ordering

Standards: safety as per IEC 61010-1, 2001 and EMC as per NF 61326-1, 1998
Warrantee: 3 years
The MTX 3250 multimeter is supplied with 1 mains power cable, 1 set of measurement leads, a user's manual and an interactive presentation of the instrument on CD-ROM.

To order

MTX3250	50,000-count Benchtop Multimeter
MTX3250-P	50,000-count Benchtop Multimeter + RS232 Supplied with an RS232 optical link, a programming manual and Labwindows / Labview drivers on CD-ROM.
MTX3250-A	50,000-count Benchtop Multimeter + Logger Supplied with an RS232 optical link, a programming manual and Labwindows / Labview drivers and the SX-DMM data logger software on CD-ROM.

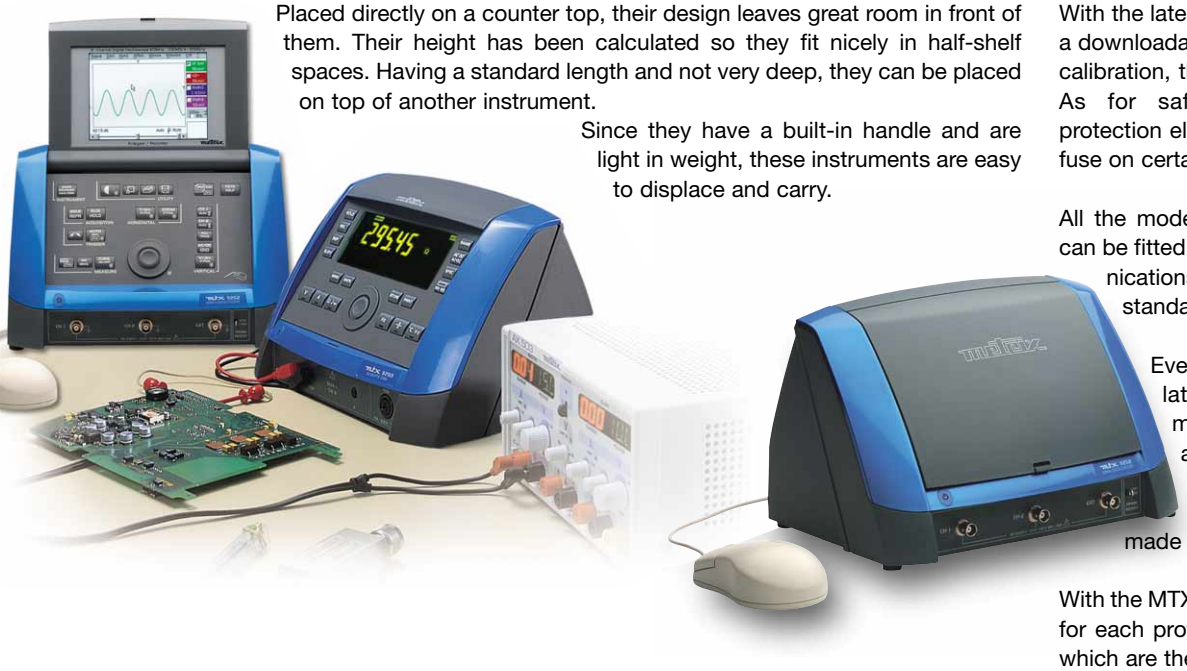
Efficiency displayed with elegance

An attractive structure and a shape that makes room

The MTX family's appealing and modern design, which is especially compact, will fit perfectly into your workspace.

Placed directly on a counter top, their design leaves great room in front of them. Their height has been calculated so they fit nicely in half-shelf spaces. Having a standard length and not very deep, they can be placed on top of another instrument.

Since they have a built-in handle and are light in weight, these instruments are easy to displace and carry.



A leader in technology, innovative to the fingertips

The qualities of the MTX do not limit themselves to their looks.
With the latest 16 or 32-bit microprocessors, a downloadable software and a 100% digital calibration, these instruments are smart too.
As for safety, a resettable electronic protection eliminates the need for the mains fuse on certain models.

All the models in the MTX Compact family can be fitted with high-performance communications interfaces and communication standard SCPI.

Even the selection keyboard is the latest in technology with its microswitch contacts that have an exceptionally long life span: more than 100,000 maneuvers. The markings on the keys are made with permanent laser engraving.

With the MTX family, Metrix makes it possible for each professional to access instruments which are the best of the best.

A user-friendly, man-machine interface with exceptional legibility

Even at a distance or in poor light (sun, neon), the measurements are perfectly readable, perfectly legible thanks to its large (50 x 140 mm), dark background display and adjustable led-matrix backlighting as well as the exceptional height of the main display of 20 mm (MTX 3240 and MTX 3250).
The very attractive adjustable LCD screen of the MTX 3352 and MTX 3252 is available in monochrome and colour versions, with also excellent legibility.

Situated on the front panel, the operations zones of the whole MTX Compact family are large, coherent, and organized; and the measurement connections are easily accessible.
On the generator and multimeter, primary functions are selected directly with keys that are marked with their function and a led. A high-performance encoder makes it possible to make settings, and contextual keys located at the edge of the screen clearly show the configuration.
In addition to direct access via the keyboard, the oscilloscope is also controlled via the mouse, under a "Windows-like" environment, facilitating learning. Unprecedented in this device category.

Characteristics subject to modifications according to technological developments.

metrix®

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For assistance and ordering

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