

20 to 150 MHz Analogue Oscilloscopes



Because 80% of signals are periodic,
analogue technology is still the reference display method

- Complete uniform range of low-cost models
- Wide input dynamic range: 1 mV/div. and up to 20 V/div.
- Surface-mount technology and software switching: modern and reliable
- Microprocessor control for maximum simplicity
- Autoset on all models
- Excellent tracing quality and specific contrast filters
- Readout and measurement cursor (OX 863B)
- Optional RS 232 interface and associated software for remote control by PC
- Multiple mains supply (94 to 264 V and 48 to 440 Hz)

OX 863B - OX 803B - OX 530 - OX 520B: 20 to 150 MHz Analogue Oscilloscopes

Easy to use

The active selection is clearly displayed by LED for each function, and the last set-up used before switching off is automatically restored when the instrument is switched on again. For optimum efficiency, these 4 models are equipped with an active AUTOSET function on both channels. This enables a good representation of the signal to be quickly obtained.

AUTOSET button to the right of the screen.

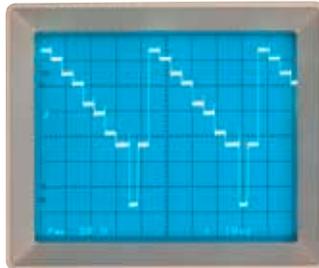


A coherent range

The oscilloscopes in this uniform range feature similar traditional front panels with the controls all grouped together in functional clusters. Switching from working with one model to another is therefore a quick process that does not require any extra training. This coherence between models is true of all METRIX oscilloscopes, by whatever technology they work (analogue or digital), and this comes into its own when working with a large fleet of instruments.

Video line counting

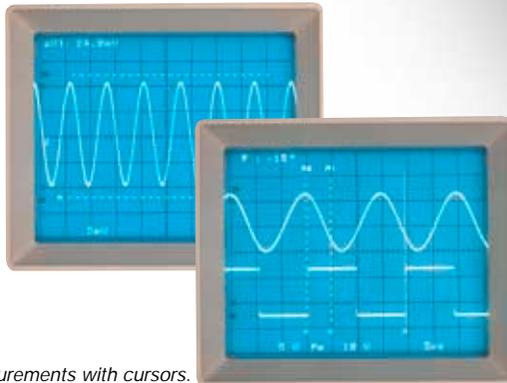
Each model has a TV trigger mode, enabling "line" or "frame" synchronisation of the video image. The OX 863B is further equipped with a complete line counting mode. This trigger mode makes it possible to display a particular line, chosen by the operator in a TV standard (525 - 625 lines), or a specific line (up to 1255). Detailed analysis of this line is possible using the second time base.



Making full use of TV signals.

Readout and measurement cursors

Often regarded as an advantage reserved exclusively for digital oscilloscopes, the Readout function also comes on analogue oscilloscopes. Thus, the OX 863B gives on-screen display of: vertical and horizontal offset coefficients, the triggering point and its slope, the line or standard in TV triggering mode and the probe coefficient. As well as all this, there's precise measurement of amplitude, time and phase with cursors.



Measurements with cursors.

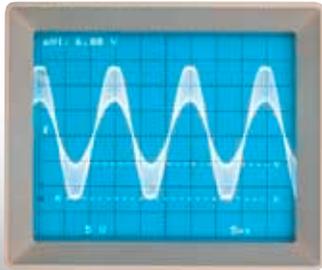
Serial link and software

Models OX 863B and OX 803B can be equipped with an RS 232 interface. This makes it possible to control and program their front panels from a PC, so as to integrate them into computer-controlled systems.



METRIX reliability

These oscilloscopes bring together all the ingredients that go to make up modern oscilloscopes: electronic switching and surface-mount technology, among other things, go to increase their working life. On top of this, there is integral micro-processor control.



Excellent display quality

Excellent trace and contrast quality

All models are equipped with blue screen filters and, thanks to their Philips tubes, these new METRIX analogue oscilloscopes offer excellent display quality. This is especially so since these instruments have an alternated trigger which enables stable display in all instances. With its high after-acceleration tube, the OX 863B makes it possible to observe fast signals with a high level of brightness.

Varied applications

The OX 803B has an original component test function. Simply select the "TEST" display mode and connect the component to the "COMPONENT TESTER" terminals to display the frequency response curve $I = f(V)$, i.e. the voltage on X and the current on Y.



A wide input dynamic range

With an input dynamic range stretching from 1 mV/div. to 20 V/div., the OX 803B avoids the use of an attenuator or amplifier probe in most cases. As for the OX 863B, it goes down to 2 mV/div, whilst the OX 530 and OX 520B reach 20 V/div.



The latest technology for greater reliability (Multiple mains supply).

Accessories and ordering information

Accessories included

In its basic form, each oscilloscope comes with a mains lead and a user's manual. A probe-equipped version exists of each model (probe supplied as standard for the OX 863B).

Optional accessories

- AE0189** Carrying bag
- HA1255** RS 232 communication kit for OX 803B*
- HA1267** Programming kit for OX 863B**
- HX0003** Probe: 1/10 - 150 MHz, Cat. II, 400 V
- HX0004** Probe: 1/10 - 250 MHz, Cat. II, 1000 V
- HX0006** Probe: 1/100 - 300 MHz, 5 kV peak
- MX9003** Differential probe: 30 MHz
- AM0030N** Current probe: 100 A AC/DC - 100 mV and 10 mV/A
- AM0031N** Current probe: 600 A AC/DC - 10 mV and 1 mV/A

* Includes the interface, one lead and disk containing the Labwindows drivers, and front panel control software.

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To order

- OX0863B-CFG** Analogue oscilloscope: 2 x 150 MHz
- OX0803B-CFG** Analogue oscilloscope: 2 x 40 MHz
- OX0530-CFG** Analogue oscilloscope: 2 x 35 MHz
- OX0520B-CFG** Analogue oscilloscope: 2 x 20 MHz

OX 863B - OX 803B - OX 530 - OX 520B: 20 to 150 MHz Analogue Oscilloscopes

TECHNICAL SPECIFICATIONS	OX 863B	OX 803B	OX 530	OX 520B
• Vertical deflection				
Bandwidth	150 MHz	40 MHz	35 MHz	20 MHz
Cathode ray tube	15.5 kV	2 kV	2 kV	2 kV
Number of channels	2	2	2	2
Input impedance	1 M Ω / 15 pF	1 M Ω / 25 pF	1 M Ω / 25 pF	1 M Ω / 25 pF
Max. input voltage	\pm 400 Vmax	\pm 400 Vmax	\pm 420 Vmax	\pm 420 Vmax
Sensitivity	2 mV to 5 V/div.	1 mV to 20 V/div.	5 mV to 20 V/div.	5 mV to 20 V/div.
Continuous gain adjustment	1 to 2.5	1 to 2.5	1 to 2.5	1 to 2.5
Operating modes	CH1, CH2, -CH2, ALT, CHOP, ADD, XY, BWL	CH1, CH2, -CH2, ALT, CHOP, ADD, XY, Component test	CH1, CH2, -CH2, ADD, XY, ALT and CHOP automatic	CH1, CH2, -CH2, ADD, XY, ALT and CHOP automatic

• Horizontal deflection				
Time base	2	1 + Delay	1	1
Sweep speed	100 ms to 50 ns/div.	200 ms to 50 ns/div.	200 ms to 50 ns/div.	200 ms to 50 ns/div.
L.V. expansion	10 (max 5 ns/div.)	10 (max 10 ns/div.)	10 (max 10 ns/div.)	10 (max 10 ns/div.)
Continuous adjustment	1 to 2.5	1 to 2.5	-	-
XY mode	4 MHz	2 MHz	2 MHz	2 MHz
HOLD-OFF	1 to 10 div.	1 to 10 div.	-	-
Z modulation input	20 MHz	4 MHz	-	-
Triggering	160 MHz	75 MHz	40 MHz	40 MHz
Source	CH1, CH2, ALT, EXT, LINE	CH1, CH2, ALT, EXT, LINE	CH1, CH2, ALT, EXT, LINE	CH1, CH2, ALT, EXT, LINE
Coupling	DC, AC, LFR, HFR, Mode TV*	DC, AC, LFR, HFR, TVV, TVH	DC, AC, LFR, HFR, TVV, TVH	DC, AC, LFR, HFR, TVV, TVH
Sensitivity	Int.: 0.5 to 2 div. Ext.: 100 to 300 mV	Int.: 0.5 to 1.5 div. Ext.: 60 to 700 mV	Int.: 0.5 to 1.5 div. Ext.: 50 to 700 mV	Int.: 0.5 to 1.5 div. Ext.: 50 to 700 mV

• Specific features				
Compens. Probe ratio	x 1, x 10, x 100	-	-	-
UNCAL CH1, CH2	Yes	Yes	Yes	Yes
Measurement cursors	Δ V, Δ T, 1/ Δ T, ϕ	-	-	-
Component test	-	18 Vcc / 9 mA max Banana socket	-	-
TV (PAL, SECAM, NTSC) Synchro.	525, 625, or 1 to 1250 lines	TV line and frame	TV line and frame	TV line and frame

* ALL: synchro. of video signal on all lines - CPT: synchro. on the chosen line.

GENERAL SPECIFICATIONS	OX 863B	OX 803B	OX 530	OX 520B
Memorised set-up	1	1	1	1
Readout	Yes	-	-	-
Interfaces and software	(HA1267) Optional	(HA1255) Optional	-	-
Operating temperature	0 to 40 °C	0 to 50 °C	0 to 40 °C	0 to 40 °C
Storage temperature	-20 to 70 °C			
Universal supply	94-264 V (45/440 Hz)	94-264 V (48/440 Hz)	94-264 V (48/440 Hz)	94-264 V (48/440 Hz)
Dimensions L x W x H	435 x 330 x 163 mm			
Weight	5.5 kg	6.3 kg	5.5 kg	5.5 kg
IEC 61010 safety	Cat. II, 400 V			
Warranty	2 Yrs	2 Yrs	2 Yrs	2 Yrs

Characteristics subject to modifications according to technological developments.

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