Testers and Multimeters

Portable oscilloscope SCOPIX® range

The OX 7202 and OX 7204 offer a bandwidth of 200 MHz, storage on removable SD card and a new TFT screen.
2 versions of the OX 7104 and OX 7042 are specially designed for electrical power applications

	OX 7042	OX 7062	OX 7102	OX 7104	OX 7202	OX 7204
Bandwidth	40 MHz	60 MHz	100 MHz	100 MHz	200 MHz	200 MHz
	Bande passante avec filtres					
Channels	2 isolated channels			4 isolated channels	2 isolated channels	4 isolated channels
IEC 61010 safety	Cat. III – 600 V			Cat. III – 600 V	Cat. III – 600 V	Cat. III – 600 V
Sampling rate per channel	2.5 GS/s in one-shot mode or 100 GS/s for periodic signals					
Transient detection	Glitch capture – minimum duration 2 ns					
Vertical resolution	12 bits, giving a vertical resolution of 0.025 %					
Display modes	Vector, interpolation, persistence (envelope), averaging (factors 2 to 64)					
Scaling and physical units	Definition of a factor and the corresponding unit					
Digital oscilloscope						
Input sensitivity	2.5 mV to 200 V/div (156 µV max. with zoom, thanks to the 12-bit resolution)					
Time base	1 ns to 200 s/div, 100 ms to 200 s/div Roll mode					
Memory	Up to 200 curves of 2,500 points (including universal "text" format) – memory depth up to 50 k Mass storage of up to 2 GB on removable SD card					
Reference curves on screen	1 per active channel (1 to 4) / Direct storage by means of dedicated key					
Automatic measurements with marker	19 simultaneous measurements on a curve or deviations in relation to the reference curve – 12-bit resolution					
Triggering	Edge, pulse width, delay, counting, video with line counter, on one of the 16 automatic measurements					
Calculation functions on channels	FFT on 2,048 points, +, -, x, /, and complex function generator					
TRMS multimeter (AC, AC+DC)						
Measurement channels with 200 kHz bandwidth	2 isolated channels			4 isolated channels	2 isolated channels	4 isolated channels
Measurement functions	Voltage, current, frequency, resistance, capacitance, temperature (Pt 100, K thermocouple), Diode test and audible continuity, relative mode, min/max mode					
Graph of measurements with cursors	Duration from 5 minutes to 31 days, data storage in universal "text" format – triggering on thresholds					
Harmonic analyser*						
Multi-channel analysis (2 or 4 depending on model)	61 orders, fundamental frequency from 40 Hz to 450 Hz					
Simultaneous measurements	Total Vrms, THD and selected order (% fundamental, phase, frequency, Vrms)					
12-bit digital recorder*						
Multi-channel recording	Duration 2 s to 31 days, normal mode or capture of 510 faults with pre-trigger - sampling interval from 40 µs					
Recording conditions	On thresholds or window, simultaneous conditions on several channels – recording in memory or on PC hard disk					
Analysis of recordings	Scale and physical units, measurement using cursors, search for faults, zoom, etc.					
Power measurement*						
Measurement functions	Active power on single-phase or three-phase and PF					
Harmonics	Harmonic analysis on apparent power					
General specifications						
Windows-like operator interface	B&W or colour*	Colour				
Simultaneous display of traces	Up to 4 traces + 4 reference curves on the screen / "full screen" trace mode					
PC communication **Printing**	Isolated RS232*, USB* or 10 Mb Ethernet / Network printers or Centronics / FTP mode to use the PC hard disk for back-up storage / LPD mode for printing on a printer connected to a PC / Web server with real-time display, remote control and automatic measurement					
Power supply by rechargeable battery	Battery life up to 4 hours, fast charging in 2 hours without removing batteries					

** Depending on model or option*

References for ordering and state at delivery

OX7042-MSD • OX7042-CSD • OX7062-CSD
OX7102-CSD • OX7202-CSD • OX7204-CSD
• Oscilloscope in cardboard box with:
external power supply/battery charger, NiMH battery pack, magnetic stylus, 1/10 Probix HX0030B probe for 2-ch. version and 2 probes for 4-ch. version, Probix HX0031 BNC adapter for 2-ch. version and 2 adapters for 4-ch. version, Probix HX0033 Ø 4 mm banana adapter, set of Ø 4 mm banana leads + test probe, HX0040 crossed-Ethernet cable, HX0084 USB cable, µSD card with minimum capacity of 1 GB and SD-Card adapter, operating and programming manual and LW/LV drivers on CD-Rom.

OX7042P-CSDK • OX7104P-CSDK
• Same as version -MSD and -CSD plus:
1/10 Probix HX0030B probe, Probix HX0031 BNC adapter, HX0072 and HX0073 FLEX current probes, 2 HX0071 industrial accessories kits for HX0030B Probix probe, HX0039 straight-Ethernet cable, SX-METRO/P processing software (all software options installed) and carrying case.

OX7104-CSDO • OX7204-CDSO
• Same as version -MSD and -CSD plus:
2 x 1/10 Probix HX0030B probes, SX-METRO/P processing software with harmonics, logger and 50 KB options installed, carrying case.

HANDSCOPE

Handheld oscilloscope with isolated channels

	OX 5022	OX 5042
Man-machine interface		
Type of display	*3.5" colour TFT LCD screen – Resolution 320x240 – LED backlighting*	
Display mode	*2,500 real acquisition points on screen*	
Display of curves on screen	*2 curves + 2 references + memory trace or mathematical calculation*	
Commands	*Direct adjustments on front panel & on-screen menus via browser (principal & secondary without "hidden menus")*	
Integrated interactive help function	*11 languages: French, English, German, Spanish, Italian, Swedish, Romanian Rumanian, Russian, Finnish, Polish, Dutch*	
Oscilloscope mode / Vertical deflection		
Bandwidth	*20 MHz*	*40 MHz*
Bandwidth limiter	*1,5 MHz, 5 kHz*	
Number of channels	*2 totally-isolated channels*	
Input impedance	*1 MΩ ±0.5 %, approx. 17 pF*	
Maximum input voltage	*600 V CAT III – Derating -20dB per decade from 100 kHz*	
Vertical sensitivity	*5 mV to 200 V/div*	
Horizontal deflection		
Sweep speed	*25 ns/div to 200 s/div –Roll Mode from 100 ms to 200 s/div*	
Horizontal zoom	*Zoom factor: x1, x2, x5*	
Triggering		
Mode	*Automatic, triggered, one-shot & triggered Roll*	
Type	*Edge, pulse width (20 ns – 20 s)*	
Coupling	*AC or DC (depending on the coupling of the triggering channel), HF, LF or noise rejection*	
Sensitivity	*≤ 1.2 divisions p-p up to 20 MHz*	*≤ 1.2 divisions p-p up to 40 MHz*
Digital memory		
Maximum sampling rate	*Automatic, triggered, one-shot & triggered Roll*	
Vertical resolution	*9 bits*	
Memory depth	*2,500 points per channel*	
User storage	*2 MB for storing trace (.trc), text, (.txt), configuration (.cfg) and image files (.bmp)*	
GLITCH mode	*Duration ≥ 20 ns – 1,250 Min/Max pairs*	
Display modes	*Envelope, Averaging (factors 2 to 64) and XY (vector)*	
Other functions		
MATH functions	*Channel inversion, addition, subtraction, multiplication and division (adjustable scaling)*	
Cursor measurements	*2 cursors: V, T, dV, dt simultaneously –4-digit display resolution*	
Automatic measurements	*18 time or level measurements and phase measurement*	
Multimeter mode		
General specifications	*2 channels, 8,000-count display + min/max bargraph – Graphic recording of 2,700 measurements (5 min to 1 month)*	
Operating modes	*Absolute or relative display (absolute, deviation, ref, ref%) – Monitoring (instantaneous, Min, Max, Avg)*	
AC, DC and AC+DC voltages	*Ranges from 600 mV to 600 VRMS, 800 mV to 800 VDC – accuracy for VDC 1 %reading+20D –50 kHz bandwidth*	
Resistance	*Range from 80 Ω to 32 MΩ - accuracy 2%R + 10D –10 ms quick continuity test*	
Capacitance	*Ranges from 5 nF to 5 mF – basic accuracy 2 %reading+10D*	
Other measurements	*Frequency, rotation speed, 3.3 V diode test, temperature measurement (with K thermocouple or infrared probe)*	
Power		
Measurements	*Single-phase and balanced three-phase active power values (with or without neutral), simultaneous display of current*	
Harmonic analyser mode		
Multi-channel analysis	*2 channels, 31 orders, fundamental frequency from 40 to 450 Hz*	
Simultaneous measurements	*Total V_{RMS}, THD and selected order (%fundamental, phase, frequency, V_{RMS})*	
General specifications		
Screenshots	*Up to 100 files in standard ".bmp" format, viewable on the instrument*	
PC communication	*Isolated optical USB interface –"SX-Metro" PC application software available as an option (version CK)*	
Power supply	*6 LR6 or 6 AA NiMh batteries – Battery life up to 8 hrs 30 min – Universal mains adapter isolated from the channels – Quick charging in 2 hrs 30 min*	
Safety / EMC	*Safety according to IEC61010-1 Ed3 – 600 V CAT III – EMC according to EN61000-3, 2001 & EN61326-1, 2006*	
Mechanical specifications	*214x110x57mm – 1.2 kg with batteries – moulded elastomer casing, IP54 protection*	
Warranty	*3 years*	

References for ordering and state at delivery

Version C: *1 oscilloscope delivered with 1 probe (1/10, 1000 V), 1 BNC/Banana adapter, 1 set of banana leads, 1 mains adapter, 1 set of 6 AA NiMh batteries, 1 "hands-free" bag, 1 CD-Rom containing 1 operating manual and 1 programming manual*

Version CK: *same as version C plus 1 optical USB communication cable and 1 CD containing the SX-METRO/P software and USB cable drivers*

OX5022-C: *1 oscilloscope 2 x 20 MHz*
OX5022-CK: *1 oscilloscope, 2 x 20 MHz + USB communication*
OX5042-C: *1 oscilloscope 2 x 40 MHz*
OX5042-CK: *1 oscilloscope 2 x 40 MHz + USB communication*