

# OSCILLOSCOPES

## HANDSCOPE

### MODEL OX 5042B

*3-in-1 Instrument: Oscilloscope, Multimeter and Power Harmonic Analyzer with two fully isolated channels; fits into one hand*

### SPECIFICATIONS

<b>INTERFACE</b>	
Display	3.5 in color TFT LCD screen; Resolution (320 x 240) pixels – LED backlighting
Commands	Direct adjustments on front panel & on-screen menus via browser (principal & secondary without "hidden menus")
Display Mode	2500 real acquisition points on screen
Display of Curves on Screen	2 curves + 2 references + memory trace or mathematical calculation
Integrated Interactive Help Function	14 complete languages, menus and online help
<b>OSCILLOSCOPE MODE</b>	
<b>Vertical Deflection</b>	
Bandwidth	40 MHz
Bandwidth Limiter	1.5 MHz, 5 kHz
Number of Channels	2 fully isolated channels
Input Impedance	1 M $\Omega$ $\pm$ 0.5 %, approx. 17 pF
Maximum Input Voltage	600 V – Derating -20 dB per decade from 100 kHz
Vertical Sensitivity	5 mV to 200 V/div
<b>Horizontal Deflection</b>	
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
<b>Triggering</b>	
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
Sensitive	$\leq$ 1.2 divisions p-p up to 40 MHz
<b>Digital Memory</b>	
Maximum Sampling Rate	2 Gs/s in ETS mode – 50 MS/s in one-shot mode on each channel
Vertical Resolution	9 bits
Memory Depth	2500 points per channel
User Storage	2 MB for storing files: trace (.trc), text (.txt), configuration (.cfg), image files (.bmp)
GLITCH Mode	Duration $\geq$ 20 ns – 1250 min / max pairs
Display Modes	Envelope, Averaging (factors 2 to 64) and XY (vector)
<b>Other Functions</b>	
Math Functions	Channel inversion, addition, subtraction, multiplication and division (adjustable scaling)
Cursor Measurement	2 cursors: V, T, dV, dt simultaneously – 4-digit display resolution
Automatic Measurement	18 time or level measurements and phase measurement
<b>Multimode Mode</b>	
General Specifications	2 channels, 8000-count display + min / max bargraph – Graphic recording of 2700 measurements (5 min to 1 mos)
Operating Modes	Absolute or relative display (absolute, deviation, ref, ref %) – Monitoring (instantaneous, min, max, avg)
AC, DC & AC+DC Voltages	Ranges from 600 mV to 600 Vrms, 800 mV to 800 Vdc – accuracy for Vdc $\pm$ 1 % reading +20 D –50 kHz bandwidth
Resistance	Range from 80 $\Omega$ to 32 M $\Omega$ - accuracy $\pm$ 2 % reading + 10 D –10 ms quick continuity test
Capacitance	Ranges from 5 nF to 5 mF – basic accuracy $\pm$ 2 % reading + 10 D
Other Measurements	Frequency, rotation speed, 3.3 V diode test, temperature measurement (with K-type thermocouple or infrared probe)
<b>POWER</b>	
Measurements	Single-phase and balanced three-phase active power values (with or without neutral), simultaneous display of current
<b>Harmonic Analyzer Mode</b>	
Multi-Channel Analysis	2 channels, 31 orders, fundamental frequency from (40 to 450) Hz
Simultaneous Measurements	Total VRMS, THD and selected order (% fundamental, phase, frequency, Vrms)
<b>GENERAL</b>	
Screenshots	Up to 100 files in standard .bmp format, viewable on the instrument
PC Communication	Isolated optical USB interface SX-Metro PC application software (included)
Power Supply	6 LR6 or (6) AA NiMH batteries – Battery life up to 8 h 30 min Universal line adapter isolated from the channels – Quick charging in 2 h 30 min
Safety/EMC	Safety according to IEC61010-1 600 V CAT III / EMC according to EN61000-3 & EN61326-1



3 YEAR WARRANTY

Consult factory for NIST Calibration prices



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# OSCILLOSCOPES HANDSCOPE

## FUNCTIONAL DISPLAYS

### FEATURES

- Two fully isolated channels
- Three instruments in one
  - 40 MHz Oscilloscope
  - Double 8000-count TRMS Multimeter / Power Analyzer
  - Harmonic Analyzer
- 3.5 in color LCD screen LED backlighting technology
- Integrated interactive multilingual help function
- 2 MB recording data
- Store graphic recordings of 2700 measurements (5 min to 1 mos)
- Communication via isolated USB SCPI protocol

### PRODUCT INCLUDES

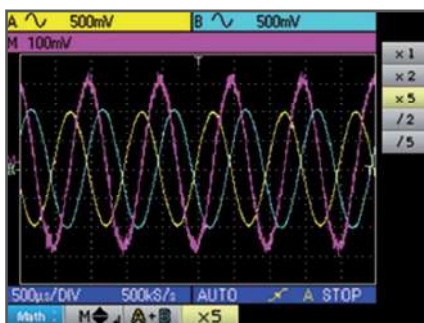
#### 2150.21

Meter, small classic tool bag, US wall plug, USB cable, set of (2) 10 ft color-coded (red/black) leads, set of (2) color-coded (red/black) alligator clips, set of (2) color-coded (red/black) probes, BNC adapter, (2) probes 10:1 600 V BNC male, (6) 1.2 V NiMH rechargeable batteries, printed quick start guide, and a USB drive with software and user manual.

#### 2150.22

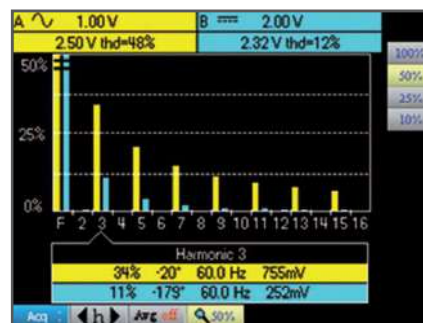
Meter, field case, US wall plug, USB cable, set of (2) 10 ft color-coded (red/black) leads, set of (2) color-coded (red/black) alligator clips, set of (2) color-coded (red/black) probes, BNC adapter, (1) probe 10:1 600 V BNC male, (1) AC current probe Model MN251T, MiniFlex® Sensor 3000-24-1-1, (6) 1.2 V NiMH rechargeable batteries, printed quick start guide, and a USB drive with software and user manual.

#### HIGH PERFORMANCE



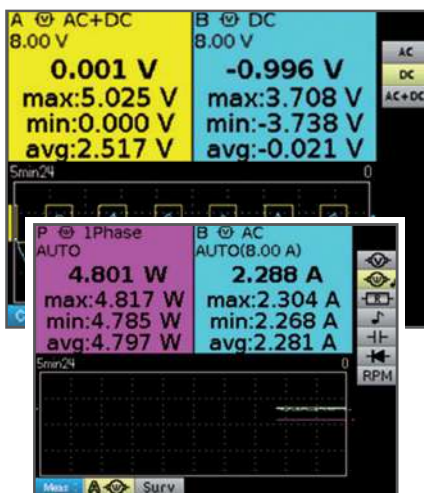
Automatically displays measurements for both isolated channels from your choice of 19 measurement types

#### HARMONIC ANALYZER



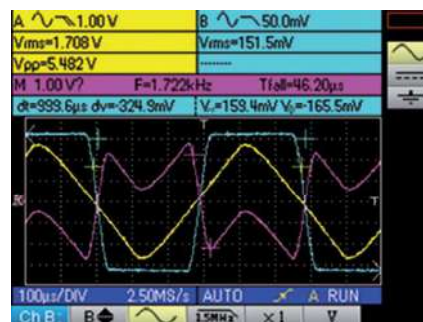
Measures two channels of individual harmonic content up to the 31<sup>st</sup> harmonic

#### TWO INDEPENDENT 8000-COUNT TRMS DIGITAL MULTIMETERS



Instantly displays measurements in multimeter mode at the press of a button

#### STORAGE COMMUNICATION & PC SOFTWARE



View real-time measurements on your PC, configure the Handscope, export data to spreadsheet using the SX-Metro included software

#### 2150.23

Meter, field case, US wall plug, USB cable, set of (2) 10 ft color-coded (red/black) leads, set of (2) color-coded (red/black) alligator clips, set of (2) color-coded (red/black) probes, BNC adapter, (1) probe 10:1 600 V BNC male, (1) AC current probe Model MN379T, MiniFlex® Sensor 3000-24-1-1, (6) 1.2 V NiMH rechargeable batteries, printed quick start guide, and a USB drive with software and user manual.



SHOWN: CATALOG #2150.22

CATALOG NO.	DESCRIPTION
2150.21	Handheld Portable Oscilloscope Model OX 5042B
2150.22	Handheld Portable Oscilloscope Model OX 5042B w / MN251T & MF 3000-24-1-1 (BNC Output)
2150.23	Handheld Portable Oscilloscope Model OX 5042B w / MN379T & MF 3000-24-1-1 (BNC Output; Low AC current measurement)

