

Handscope



**Models OX5022 & OX5042**

**The only oscilloscopes on the market with isolated channels that fit into one hand**



► **SPECIFICATIONS**

| MODELS                               | OX5022  | OX5042                          |
|--------------------------------------|---|---------------------------------|
| <b>INTERFACE</b>                     |   |                                 |
| Display                              | 3.5" color TFT LCD screen; Resolution 320 x 240 – 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 | 11 languages: French, English, German, Spanish, Italian, Swedish, Romanian, Russian, Finnish, Polish, Dutch                                     |                                 |
| <b>OSCILLOSCOPE MODE</b>             |   |                                 |
| <b>Vertical Deflection</b>           |   |                                 |
| Bandwidth                            | 20MHz   | 40MHz                           |
| Bandwidth Limiter                    | 1.5MHz, 5kHz  |                                 |
| Number of Channels                   | 2 totally isolated channels   |                                 |
| Input Impedance                      | 1MΩ ±0.5%, approx. 17pF   |                                 |
| Maximum Input Voltage                | 600V CAT III – Derating -20dB per decade from 100kHz  |                                 |
| Vertical Sensitivity                 | 5mV to 200V/div   |                                 |
| <b>Horizontal Deflection</b>         |   |                                 |
| Sweep Speed                          | 25ns/div to 200s/div – Roll Mode from 100ms to 200s/div   |                                 |
| Horizontal Zoom                      | Zoom factor: x1, x2, x5   |                                 |
| <b>Triggering</b>                    |   |                                 |
| Mode                                 | Automatic, triggered, one-shot & triggered Roll   |                                 |
| Type                                 | Edge, pulse width (20ns – 20s)  |                                 |
| Coupling                             | AC or DC (depending on the coupling of the triggering channel) HF, LF or noise rejection  |                                 |
| Sensitive                            | ≤ 1.2 divisions p-p up to 20MHz   | ≤ 1.2 divisions p-p up to 40MHz |
| <b>Digital Memory</b>                |   |                                 |
| Maximum Sampling Rate                | 2GS/s in ETS mode – 50MS/s in one-shot mode on each channel   |                                 |
| Vertical Resolution                  | 9 bits  |                                 |
| Memory Depth                         | 2500 points per channel   |                                 |
| User Storage                         | 2MB for storing files: trace (.trc), text (.txt), configuration (.cfg), image files (.bmp)  |                                 |
| Glitch Mode                          | Duration ≥ 20ns – 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>MULTIMETER MODE</b>               |   |                                 |
| General Specifications               | 2 channels, 8000-count display + min/max bargraph – Graphic recording of 2700 measurements (5min to 1 month)                                    |                                 |
| Operating Modes                      | Absolute or relative display (absolute, deviation, ref, ref%) – Monitoring (instantaneous, min, max, Avg)                                       |                                 |
| AC, DC & AC+DC Voltages              | Ranges from 600mV to 600Vrms, 800mV to 800Vdc – accuracy for Vdc ±1% reading+20D –50kHz bandwidth   |                                 |
| Resistance                           | Range from 80Ω to 32MΩ – accuracy ±2% reading + 10D –10ms quick continuity test   |                                 |
| Capacitance                          | Ranges from 5nF to 5mF – basic accuracy ±2% reading + 10D   |                                 |
| Other Measurements                   | Frequency, rotation speed, 3.3V 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 450Hz   |                                 |
| 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 6AA NiMH batteries – Battery life up to 8hrs 30min<br>Universal line adapter isolated from the channels – Quick charging in 2hrs 30min |                                 |
| Safety/EMC                           | Safety according to IEC61010-1 Ed3 – 600V CAT III, EMC according to EN61000-3, 2001 & EN61326-1, 2006   |                                 |

# Models OX5022 & OX5042

## Functional Displays

### FEATURES

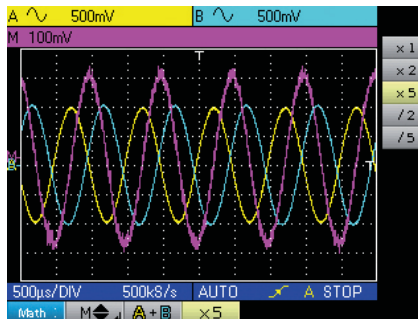
- Two isolated channels
- Three instruments in one
  - 20 or 40MHz oscilloscope
  - Double 8000-count TRMS multimeter / Power analyzer
  - Harmonic analyzer
- 3.5" color LCD screen  
LED backlighting technology
- Integrated interactive multilingual help function
- 2MB recording data
- Store graphic recordings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

### PRODUCT INCLUDES

"Hands-free" soft carrying case, set of two color-coded (red/black) 5ft silicone leads, set of two color-coded (red/black) alligator clips, set of two color-coded (red/black) needle tip probes, two 10:1 600V/BNC-M probes, one 100 to 240V power supply (12V output), one US power plug adapter (115/230V), one 4mm banana plug adapter, optical USB cable, six NiMH 1.2V rechargeable batteries, SX-METRO software on CD-ROM, user manual on CD-ROM.

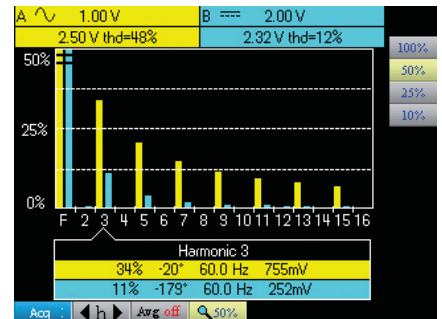


### High Performance



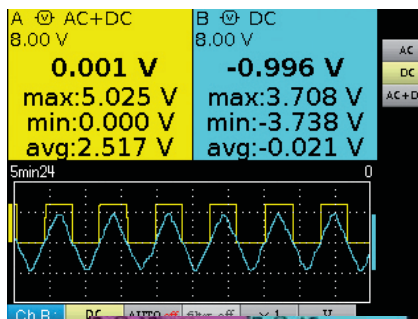
Automatically displays measurements for both isolated channels from your choice of 19 measurement types.

### Harmonic Analyzer



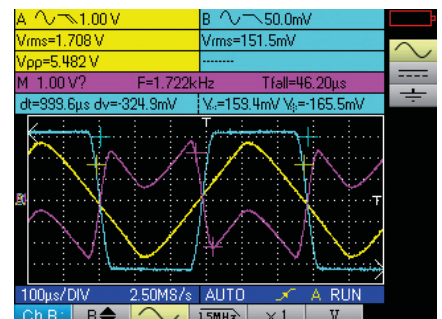
Measures two channels of individual harmonic content up to the 31<sup>st</sup> harmonic.

### 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.

| CATALOG NO. | DESCRIPTION  |
|-------------|--|
| 2150.20     | Handscope Portable Oscilloscope Model OX5022-CK (2-Channel, 20MHz) |
| 2150.21     | Handscope Portable Oscilloscope Model OX5042-CK (2-Channel, 40MHz) |