# OSCILLOSCOPES HANDSCOPE

## MODEL 0X5042

One of the few oscilloscopes on the market with isolated channels that fit into one hand



## **SPECIFICATIONS**

INTERFACE

Special product features







#### 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 11 languages: French, English, German, Spanish, Italian, Swedish, Help Function Romanian, Russian, Finnish, Polish, Dutch OSCILLOSCOPE MODE Vertical Deflection **Bandwidth** Bandwidth Limiter 1,5MHz, 5kHz **Number of Channels** 2 totally isolated channels Input Impedance $1M\Omega \pm 0.5\%$ , approx. 17pF Maximum Input Voltage 600V CAT III - Derating -20dB per decade from 100kHz **Vertical Sensitivity** 5mV to 200V/div HORIZONTAL DEFLECTION Sweep Speed 25ns/div to 200s/div - Roll Mode from 100ms to 200s/div Horizontal Zoom Zoom factor: x1, x2, x5 TRIGGERING Mode Automatic, triggered, one-shot & triggered Roll Edge, pulse width (20ns - 20s) Type 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 40MHz **DIGITAL MEMORY Maximum Sampling Rate** 2GS/s in ETS mode - 50MS/s in one-shot mode on each channel **Vertical Resolution** 9 hits **Memory Depth** 2500 points per channel 2MB for storing files: trace (.trc), text (.txt), configuration (.cfg), image files (.bmp) **User Storage** Glitch Mode Duration ≥ 20ns – 1250 min/max pairs **Display Modes** Envelope, Averaging (factors 2 to 64) and XY (vector) Other Functions Channel inversion, addition, subtraction, multiplication and division (adjustable scaling) Math Functions **Cursor Measurement** 2 cursors: V, T, dV, dt simultaneously - 4-digit display resolution 18 time or level measurements and phase measurement **Automatic Measurement MULTIMETER MODE** $2\,channels, 8000-count\,display + min/max\,bargraph - Graphic\,recording\,of\,2700\,measurements\,(5min\,to\,1\,month)$ **General Specifications 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 800Vbc – accuracy for Vbc $\pm 1\%$ reading $\pm 20D$ –50kHz bandwidth Resistance Range from $80\Omega$ to $32M\Omega$ - accuracy $\pm 2\%$ reading + 10D -10ms quick continuity test Ranges from 5nF to 5mF – basic accuracy $\pm 2\%$ reading + 10DCapacitance **Other Measurements** Frequency, rotation speed, 3.3V diode test, temperature measurement (with K-type thermocouple or infrared probe) POWER Measurements Single-phase and balanced three-phase active power values (with or without neutral), simultaneous display of current HARMONIC ANALYZER MODE **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) GENERAL 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) 6 LR6 or 6AA NiMh batteries - Battery life up to 8hrs 30min **Power Supply**



Safety/EMC

Universal line adapter isolated from the channels - Quick charging in 2hrs 30min

Safety according to IEC61010-1 Ed3 - 600V CAT III, EMC according to EN61000-3, 2001 & EN61326-1, 2006

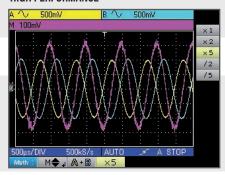
## **Functional Displays**



## **FEATURES**

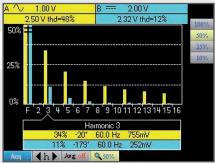
- Two isolated channels
- Three instruments in one
  - 40MHz oscilloscope
  - Double 8000-count TRMS multimeter / Power analyzer
  - Harmonic analyzer
- 3.5" color LCD screen LED backlighting technology
- Integrated interactive multilingual help function
- 2MB recording data
- Store graphic recordings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

#### **HIGH PERFORMANCE**



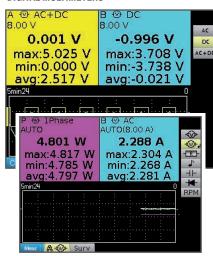
Automatically displays measurements for both isolated channels from your choice of 19 measurement types.

## HARMONIC ANALYZER

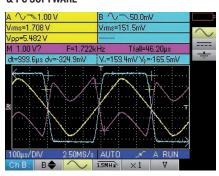


Measures two channels of individual harmonic content up to the 31st harmonic.

## TWO INDEPENDENT 8000-COUNT TRMS DIGITAL MULTIMETERS



## STORAGE COMMUNICATION & PC SOFTWARE



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

Shown: Model 2150.22 and 2150.23

## KITS INCLUDE

## 2150.21

Meter, small classic tool bag, US Wall plug, USB Cable, Set of 2, 10 ft. Color-coded Leads (red/black), Set of 2, Color-coded Alligator Clips (red/black), Set of 2, color-coded Probes (red/black), BNC Adapter, 2 Probe 10:1 600V BNC male, 1.2V NiMH rechargeable batteries, quick start guide, and USB drive with software and user manual.

## 2150.22

Meter, field case, US Wall plug, USB Cable, Set of 2, 10 ft. Color-coded Leads (red/black), Set of 2, Color-coded Alligator Clips (red/black), Set of 2, Color-coded Probes (red/black), BNC adapter, 1- Probe 10:1 600V BNC male, AC Current Probe Model MN251T, MiniFlex Sensor 3000-24-1-1, 1.2V NiMH rechargeable batteries, quick start guide, and USB drive with software and user manual.

## 2150 22

Meter, field case, US Wall plug, USB Cable, Set of 2, 10 ft. Color-coded Leads (red/black), Set of 2, Color-coded Alligator Clips (red/black), Set of 2, Color-coded Probes (red/black), BNC adapter, 1- Probe 10:1 600V BNC male, AC Current Probe Model MN379T, MiniFlex\*Sensor 3000-24-1-1, 1.2V NiMH rechargeable batteries, quick start guide, and USB drive with software and user manual.

