OSCILLOSCOPES
HANDSCOPE

MODEL OX 5042

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

SPECIFICATIONS

INTERFACE	
Display	3.5" 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	11 complete languages, menus and online help
OSCILLOSCOPE MODE	
Vertical Deflection	
Bandwidth	40MHz
Bandwidth Limiter	1.5MHz, 5kHz
Number of Channels	2 totally isolated channels
Input Impedance	1MΩ ±0.5%, approx. 17pF
Maximum Input Voltage	600V – 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
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 40MHz
Digital Memory	
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)
Other Functions	
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
Multimode Mode	
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 800V$_{DC}$ – accuracy for V$_{DC}$ ±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)
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)
Power Supply	6 LR6 or 6AA NiMH batteries – Battery life up to 8 hrs 30 mins. Universal line adapter isolated from the channels – Quick charging in 2 hrs 30 mins
Safety/EMC	Safety according to IEC61010-1 Ed3 – 600V CAT III / EMC according to EN61000-3 & EN61326-1

Consult factory for NIST Calibration prices

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)
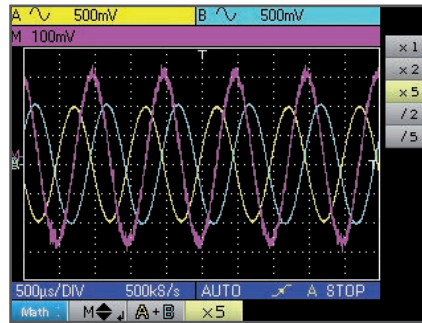- Communication via isolated USB SCPI protocol

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 600V BNC male, (6) 1.2V NiMH rechargeable batteries, printed quick start guide, and a USB drive with software and a user manual.
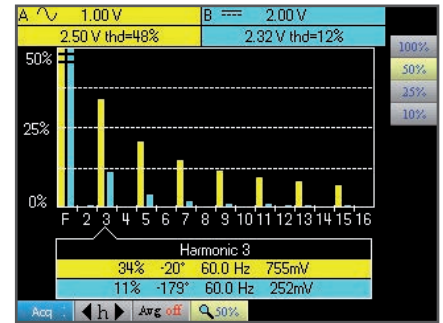
2150.22

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 600V BNC male, (1) AC current probe Model MN251T, MiniFlex® Sensor 3000-24-1-1, (6) 1.2V NiMH rechargeable batteries, printed quick start guide, and a USB drive with software and a user manual.
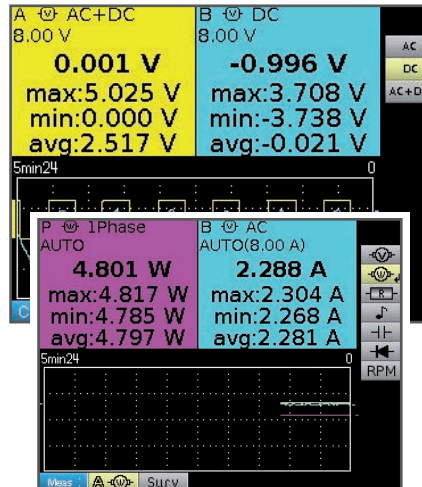
HIGH PERFORMANCE

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

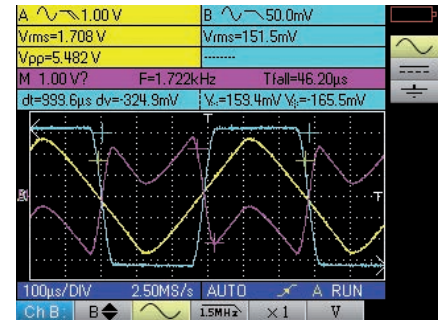#### TWO INDEPENDENT 8000-COUNT TRMS DIGITAL MULTIMETERS

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

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 600V BNC male, (1) AC current probe Model MN379T, MiniFlex® Sensor 3000-24-1-1, (6) 1.2V NiMH rechargeable batteries, printed quick start guide, and a USB drive with software and a user manual.

HARMONIC ANALYZER

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

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: CATALOG #2150.22

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