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

INTERFACE	
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
OSCILLOSCOPE MODE	
Vertical Deflection	
Bandwidth	40 MHz
Bandwidth Limiter	1.5 MHz, 5 kHz
Number of Channels	2 fully isolated channels
Input Impedance	1 MΩ ± 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
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
Sensitive	≤ 1.2 divisions p-p up to 40 MHz
Digital Memory	
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 ≥ 20 ns – 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 (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 V_{DC} – accuracy for V_{DC} ± 1 % reading +20 D –50 kHz bandwidth
Resistance	Range from 80 Ω to 32 MΩ - accuracy ± 2 % reading + 10 D –10 ms quick continuity test
Capacitance	Ranges from 5 nF to 5 mF – basic accuracy ± 2 % reading + 10 D
Other Measurements	Frequency, rotation speed, 3.3 V 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 450) Hz
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 (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

Consult factory for NIST Calibration prices

SAFETY RATING 600V CAT III • **IP 54** • CE • ▣

3 YEAR WARRANTY

Technical Assistance (800) 343-1391   Vol. 23 Rev.00 02/2023

AEMC® INSTRUMENTS

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)
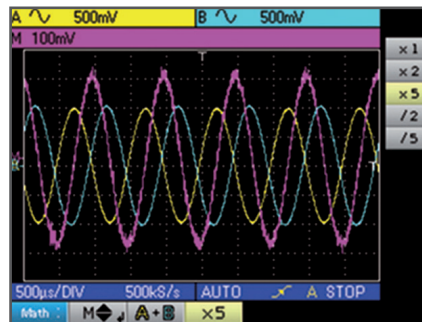- Communication via isolated USB SCPI protocol

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.
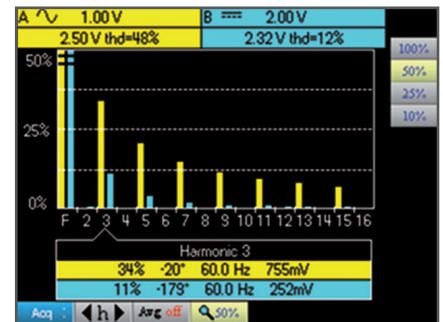
2150.22

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.
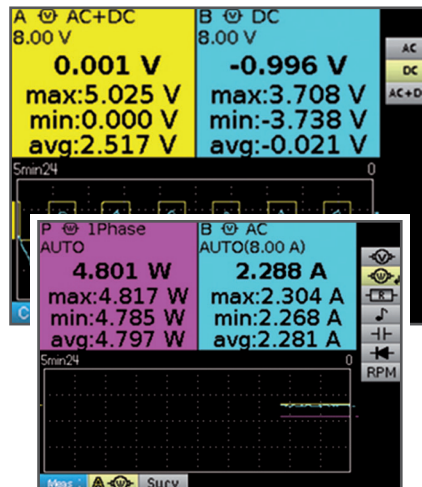
HIGH PERFORMANCE

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 31st harmonic

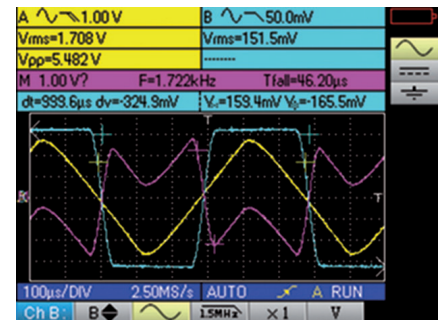**TWO INDEPENDENT 8000-COUNT TRMS DIGITAL MULTIMETERS**

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)