OXi 6204

DIGITAL ANALYSER OSCILLOSCOPE

with 4 isolated channels - 200 MHz

Extra-compact multi-function benchtop oscilloscope complete with touch screen!

- 32 direct command keys, "Windows-like" menus and graphical commands on 5.7-inch touch screen
- 4 channels isolated from one another and in relation to earth on reinforced plastic BNC connectors
- 2.5 GS/s sampling rate in one-shot mode and 100 GS/s in repetitive mode
- 12-bit resolution
- "Real time" FFT analysis and both simple and complex calculation functions on the channels over 2,500 pts
- Digital multimeters: TRMS, 8,000 counts, 200 kHz, with time/date-stamped recording on 4 channels: triggering on thresholds, monitoring mode
- Harmonic analysis and & THD measurement up to the 61st order on a fundamental from 40 to 450 Hz
- Recorders with variable sampling duration and frequency on slow signals,
- Storage on micro-SD card up to 2 GB, in internal memory (2 MB) or on remote FTP server

600 V CAT II

USB

ETHERNET

Measure up

MAGNETIC STYLUS

For the touch screen

Simple to handle, compact and lightweight, the OXi 6204 combines the functions of a digital oscilloscope, a multimeter, a recorder and an FFT/ harmonic analyser on isolated channels for measurements in total safety.

INTUITIVE ZOOM

up to x100 on a selected area

Measure with your METRIX® oscilloscope and view the results on your tablet by downloading the application from Google store !

Measurements made remotely with the OXi 6204 oscilloscope are now accessible on your Android ™ tablets and smartphones

Dedicated to Metrix® oscilloscopes, the SCOPENET web server allows adjustment, display and thorough analysis of your measurements. The SCOPENET application also offers real-time measurement display via Wifi, wherever you are located.

Extension of memory capacity

With the micro SD card, you can store up to 2 GB of data (reference curves, instrument settings, screenshots). The USB/SD card reader supplied with the instrument makes data transfers onto a PC simpler and faster.

APPLICATIONS

The OXi 6204 oscilloscope measures and analyses the signals in a wide range of situations. Engineers and lab technicians, technical staff, teachers, electronic and electrical instrument manufacturers: there are multiple applications!

Technical and scientific education

- Display of a waveform, FFT calculation, automatic measurements and manual cursor
- Power and consumption analysis on a single-phase or balanced three-phase system
- Oscillation of an RLC circuit, propagation of a sound wave, etc.

Electrical maintenance and R&D

- Measurement of a motor power supply and variable speed-drive command circuit
- Measurement of power over a large bandwidth, as well as the harmonics from the mains, power converters/ inverters, semi-conductors, etc.
- Recording of slow physical phenomena
- Monitoring of events on a three-phase system

Electricity & Electronics: repair lab, after-sales service, etc.

- Display and analysis of the electrical signals on a network or installation (voltage, duration, THD, etc.)
- Troubleshooting on electronic or electrical equipment by monitoring (hospitals, research centres, local authorities)

IDEAL ERGONOMICS FOR THE LABORATORY

This compact, stable instrument with its handle and its integrated storage case is particularly easy to move around.

Direct access and intuitive navigation

With only 32 keys giving direct access to the various modes and parameters, its "Windows-like" menus available in 5 languages, this oscilloscope is particularly simple to use. The keypad on the front panel is ideal for making a selection or a quick adjustment (time base, printing, etc.).

Graphical settings: colour TFT graphical screen

The touch screen and its magnetic stylus make it possible to modify your settings directly on the screen using graphical objects which you can move around, such as the positions of the traces, the trigger levels, the cursors and the zoom.

A display area in the bottom right-hand corner of the screen provides a constant reminder of the current parameter setting, such as the value of the cursor, for example.

Extra safety

Terminal strip equipped with 600 V-Cat. II reinforced plastic BNC connectors isolated from one another and in relation to the earth with a reminder of the colour of each channel. 4 isolated channels for measuring signals with a different earth in total safety and up to 4 independent built-in differential probes

COMMUNICATION EXPERT

To keep up to date with contemporary technology, the OXi 6204 with its ETHERNET interface (10 MB transfer) and the SCOPENET web server allows users to work in new ways. All the interfaces are isolated: USB/RS232 via proprietary cable and classic RJ45.

- Printing on network printer or VIRTUAL PRINTER print server
- Remote management of a fleet of Metrix® oscilloscopes with SCOPEADMIN
- File exchange on FTP server directly in Windows
- Remote control

The OXi 6204 can be upgraded by downloading new functions free of charge from the Support site.

AFFORDABLE PERFORMANCE ON 4 CHANNELS

In performance terms, the OXi 6204 offers fast sampling and high resolution with its 12-bit / 2.5 GS/s converter, sampling at 100 GS/s on periodic signals, and 2 ns transient capture, thus avoiding undersampling.

The oscilloscope

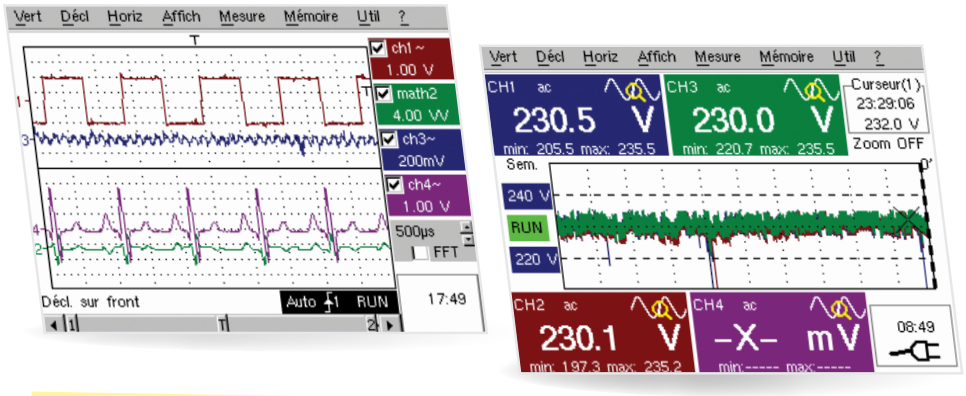
In oscilloscope mode, the broad range of trigger possibilities offered by the OXi 6204 includes both classic (edge, pulse width) and more advanced triggers:

- the delay mode for observing any event with the maximum resolution
- the counting mode can be used to count events before triggering, particularly to check the content of digital frames
- TV mode
- Backup/Restart mode: on measurement thresholds with recording as a file

For greater accuracy, by simply pressing a key, the automatic measurements window can be made to display all 20 parameters of the signal. A specific measurement area can be selected by framing it using the manual cursors, accessible by means of the dedicated key, or with the stylus on the touch screen, for greater reliability and accuracy.

The graphical "Winzoom" function can be used to take advantage of the vertical resolution of the 12-bit converter, 4 times greater than with a classic 8-bit converter. It offers a resolution of 4 digits on automatic or cursor measurements.

Also available in this mode, the classic or advanced MATH functions can be used to cover special new functions, including simulation of a trace from its mathematical equation and modelling of an expected result.



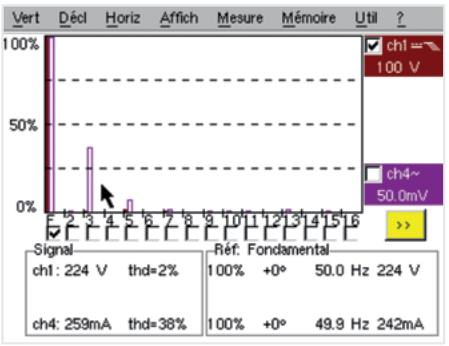
The multimeter

- Equipped with 4 x 8,000-count TRMS digital multimeters, the OXi 6204 can be used for the traditional voltage, resistance, continuity, capacitance and frequency measurements, as well as diode tests. It can also measure temperature with a Pt100 sensor, in addition to single and three-phase power on a bandwidth of 200 kHz.
- Time/date-stamped graphical recording is performed on all the active channels over a period ranging from 5 minutes to 1 month. It is possible to store up to 200 time/date-stamped faults as ".txt" files.

Mains monitoring mode on up to 4 channels

- If the RMS value of the signal reaches either of the min and max levels defined on each channel, the event is recorded and dated in a list of faults. This list can be saved in a file.

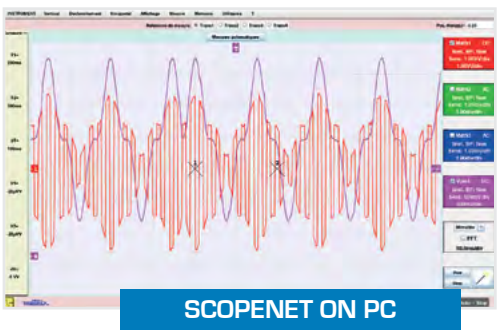
FFT & and harmonic analyser



- Calculated over 2,500 points, the FFT analysis can be set automatically with the Autoset key. The 12-bit conversion provides improved 60 dB dynamics and optimum accuracy on frequency and amplitude measurements.
- **Analysis of the odd and even harmonics** is performed **up to the 61st order** to meet the requirements of the EN 50160 standard (THD on 50 orders minimum), with a **fundamental frequency** between **40 and 450 Hz**.

The recorder

- The OXi 6204 can record very slow signals with a recording rate of pts/s, min or h over long periods. The **acquisition interval may be as short as 40 µs between 2 measurements.** The recording can cover any length of time from 2 seconds to one month.
- When viewing fault capture, the memory is segmented to allow the acquisition of up to 100 faults in 2 modes: 10 continuous faults or a single fault displayed on the full screen, in order to optimize analysis without saturating the memory. Other useful functions include searching for triggers by analysing the samples and triggering on thresholds.



SCOPENET ON PC

Technical specifications	OXi 6204
HUMAN-MACHINE INTERFACE	
Type of display	5.7" colour TFT LCD (1/4 VGA) - 320 x 240 – Backlighting (adjustable automatic power off)
Display mode	2,500 real acquisition points on screen – Vectors with interpolation, envelope and averaging (2, 4, 16, 64)
On-screen display of curves	4 curves + 4 references – Cumulated mode (brighter colour of recent acquisitions)
Screen commands	Touch screen – "Windows-like" menus and graphical commands
Choice of language	5 complete languages with menus & online help (English, French, Italian, Spanish and German)
OSCILLOSCOPE MODE	**4 channels**
Vertical deflection	
Bandwidth	200 MHz 15 MHz, 1.5 MHz or 5 kHz bandwidth limiter
Number of channels	4 channels with plastic BNC connectors isolated from the earth
Input impedance	1 MΩ ± 0.5 % , approx. 15 pF
Maximum input voltage	600 V / CAT II - 850 Vp (DC + AC peak at 1 kHz) without 1/10 probe – Derating of -20 dB per decade from 100 kHz
Vertical sensitivity	Ranges from 2.5 mV to 200 V/div – Accuracy: ± 2 %
Vertical zoom	"One Click Winzoom" system (12-bit converter and graphical zoom directly on screen) – x 16 max.
Probe factors	1 / 10 / 100 / 1,000 – definition of measurement unit
Horizontal deflection	
Sweep speed	Ranges from 1 ns/div to 200 s/div., accuracy: ± [50 ppm +500 ps]
Horizontal zoom	"One Click Winzoom" x100 system (graphical zoom directly on screen)
Triggering	
Mode	On all 4 channels (CH1 to CH4): automatic, triggered, one-shot, auto level 50 %
Type	Edge, pulse width (16 ns - 20 s), delay (120 ns to 20 s), counting (3 to 16,384 events), TV frame or no. of lines (525 = NTSC or 625 = PAL/SECAM) – Continuous adjustment of Trigger position
Coupling	AC, DC, HFR, LFR – Hold-Off adjustable from 160 ns to 30 s
Digital memory	
Maximum sampling rate	100 GS/ in ETS mode – 2.5 GS/s in one-shot mode on each channel
Vertical resolution	12 bits
Memory depth	50,000 points/channel
User memory	2 MB for storing files: trace, text, configuration, MATH functions, print files, image files, etc.+ removable large-capacity SD-Card (2 GB)
GLITCH mode	Duration ≥ 2 ns - 2,500 Min/Max pairs
Display modes	Envelope, Averaging (factors 2 to 64), cumulative and XY (vector)
Other functions	
AUTOSET	Complete in less than 5 s, with recognition of the channels – Frequency > 30 Hz, 25 mVpp to 400 Vpp
FFT analyser & MATH functions	FFT (Lin or Log) with measurement cursors - Functions: + , - , x , / and mathematical function editor
Cursors	2 cursors: simultaneous V and T or Phase – 12-bit resolution, 4-digit display
Automatic measurements	20 time or level measurements– 12-bit resolution, 4-digit display
MULTIMETER MODE	
General specifications	4 channels – 8,000 cts max. + min/max bargraph – TRMS – Time/date-stamped graphical recording (5 min to 1 month)
AC, DC, AC + DC voltages	600.0 mV to 600.0 VRMS, 800.0 mV to 800.0 VDC – accuracy for VDC 0.5 %R +15 D – bandwidth 200 kHz
Resistance	80.00 Ω to 32.00 MΩ – accuracy 0.5 %R + 25 D – 10 ms quick continuity test
Other measurements	Capacitance: 5 nF to 5 mF / Frequency: 200.0 kHz / 3.3 V diode test
Triggers on measurement window	4 monitored channels, adjustable fault durations – Up to 200 time/date-stamped faults stored in ".txt" file
HARMONIC ANALYSER MODE (option)	
Multi-channel analysis	4 channels, 61 orders, fundamental frequency from 40 Hz to 450 Hz in auto or manual mode
Simultaneous measurements	Total Vrms, THD and selected order (% fundamental, phase, frequency, Vrms)
RECORDER MODE	
Duration / Sampling	From 2 s to 1 month / 40 µs to 53 s - 100 faults stored in memory, 200 in files
Recording conditions	On thresholds or window, simultaneous conditions on several channels, with adjustable duration from 160 µs
Analysis of recordings	Scale and physical units, automatic or cursor measurements, time/date-stamped fault search function, zoom, etc.

General specifications	
Configuration memory	Unlimited – ".CFG " file size: approx. 1 kB
Printing	Network printer via Ethernet, RS232 or Centronics (option) or VIRTUAL PRINTER print server
PC communication	Ethernet RJ45, RS232 (option) or USB – "SX-Metro" application software for PC - ScopeNet
Network	10 MB remote Ethernet, web server (remote control, "real-time" trace, cursors and automatic measurements) FTP server (file exchange with PC), FTP client (storage on PC hard disk), ScopeAdmin administration utility
Mains power supply	Universal 100-240 V / 50 / 60 Hz / 20 VA max. with removable cable
Safety / EMC	Safety as per IEC 6101-1, 2001 - 600 V CAT II – EMC as per EN61326-1
Mechanical specifications	225 (h) x 190 (l) x 215 (w) mm - 1.9 kg
Warranty / origin	Lifetime warranty / FRANCE

State at delivery: 1 OXi 6204, 1 stylus, 1 user's manual and 1 programming guide on CD-ROM, 1 µSD-Card with a capacity of at least 1 GB and SD-Card card adapter, 4 x 1/10 probes, 1 Ethernet crossover cable and 1 USB/RS232 cable.

Optional accessories:

HX0028: HARMONICS mode
HX0106: BNC-BNC cable, 1 m, 600 V (x 2)
HX0107: 600 V BNC-BAN adapter (x 2)
HX0108: 1/10 probe kit + 1 BNC/BAN 600 V CAT III adapter

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