

OX 7042  
OX 7062  
OX 7102  
OX 7104

## Scopix II, portable and self-contained digital oscilloscope 40 to 100MHz



**From the laboratory to the field, from diagnostic to appraisals, for desktop and portable use, a unique instrument !**

- 5 complementary tools in one : **OSCILLOSCOPE** ; **MULTIMETER** ; **FFT ANALYSER** ; **HARMONIC ANALYSER** AND **RECORDER**
- Sampling rate 1Gs/s in single-shot and 50Gs/s in ETS
- **Memory depth of 50k** per channel (OSCILLOSCOPE & RECORDER) (option) **new**
- 2 or 4 isolated measurement channels, 600V CATIII, and up to 8 curves on screen
- "Real time" FFT analysis standard and calculation functions on the channels
- 2 or 4 digital multimeters, TRMS, 8,000 counts, 200kHz, independent
- **Trigger on thresholds of measures in multimeter and oscilloscope modes** **new**
- Colour or monochrome LCD touch screen
- 33 direct command keys and "Windows like" menus on screen
- Probix input terminals (plug & play) and associated smart sensors
- Multi-interface communication connector : RS232, USB, centronics and Ethernet
- **Simplified installation of software options thanks to a unique code** **new**
- **WEB server with cursors et automatic measurements, FTP server/client** **new**

# Scopix II, portable digital oscilloscope

| Technical specifications                      | OX7042                                                                                                                                                                                                 | OX7062              | OX7102              | OX7104              |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|
| HUMAN INTERFACE                               |                                                                                                                                                                                                        |                     |                     |                     |
| Display screen                                | Colour or monochrome (depending model) 5" 7 LCD (115 x 86 mm) - 320 x 240 –CCFL backlighting                                                                                                           |                     |                     |                     |
| Display mode                                  | 500 samples real time acquisition on screen – Vectors with interpolation                                                                                                                               |                     |                     |                     |
| Curve display on screen                       | 4 curves + 4 references - Split Screen & Full Screen modes (tracing zone 110 x 74)                                                                                                                     |                     |                     |                     |
| Front panel control                           | 33 direct shortcuts - 1 start/stop and power-saving button                                                                                                                                             |                     |                     |                     |
| Screen control                                | Touch screen - "Windows-like" menus and graphic commands                                                                                                                                               |                     |                     |                     |
| Languages                                     | 5 complete languages, menus & on-line help (French, English, German, Spanish, Italian)                                                                                                                 |                     |                     |                     |
| OSCILLOSCOPE MODE                             |                                                                                                                                                                                                        |                     |                     |                     |
| Vertical deviation                            |                                                                                                                                                                                                        |                     |                     |                     |
| Bandwidth                                     | 40MHz                                                                                                                                                                                                  | 60MHz               | 100MHz              | 100MHz              |
|                                               | Bandwidth limit : 15 MHz, 1,5MHz or 5kHz                                                                                                                                                               |                     |                     |                     |
| Channels                                      | 2 isolated channels                                                                                                                                                                                    | 2 isolated channels | 2 isolated channels | 4 isolated channels |
| Input impedance                               | 1 MΩ ± 0,5% , 17pF approx.                                                                                                                                                                             |                     |                     |                     |
| Maximum input voltage                         | 600 V / CAT III - Probix security connectors - Derating : -20dB/decade from 100kHz                                                                                                                     |                     |                     |                     |
| Vertical sensitivity                          | 16 ranges from 2,5 mV to 200 V/div and up to 156 μV/div in vertical zoom mode (12 bits converter) – Accuracy ± 1%                                                                                      |                     |                     |                     |
| Vertical zoom                                 | « One Click Winzoom » system (12 bits converter and direct graphic zoom on screen) - x 16 max                                                                                                          |                     |                     |                     |
| Probes factor                                 | 1 / 10 / 100 / 1 000 or scaling to any value – Definition of the measurement unit                                                                                                                      |                     |                     |                     |
| Horizontal deflection                         |                                                                                                                                                                                                        |                     |                     |                     |
| Time base speed                               | 35 ranges from 1 ns/div to 200 s/div., accuracy ± 0,1% - Roll mode from 100ms to 200s/div                                                                                                              |                     |                     |                     |
| Horizontal zoom                               | « One Click Winzoom » system (direct graphic zoom on screen)<br>x1 to x5 and up to x100 with « Extended Memory Acquisition » option                                                                    |                     |                     |                     |
| Trigger circuit                               |                                                                                                                                                                                                        |                     |                     |                     |
| Mode                                          | On all channels : automatic, triggered, single, auto 50%                                                                                                                                               |                     |                     |                     |
| Type                                          | Edge, Pulse (20 ns to 20 s), Delay (120ns to 20s), Count (3 to 16384 events),<br>TV frame or N° of line (525=NTSC or 625=PAL/SECAM) – Continuous adjustment of the trigger's position                  |                     |                     |                     |
| Coupling                                      | AC, DC, HFR, LFR, noise – Hold-Off adjustable from 160 ns to 30 s                                                                                                                                      |                     |                     |                     |
| Sensitivity                                   | ≤ 0,6 div at 1 KHz / ≤1,5 div on full bandwidth                                                                                                                                                        |                     |                     |                     |
| On measuring window                           | Starting from one of the 16 automatic measurements - Acquisition and fault automatic stored                                                                                                            |                     |                     |                     |
| Digital memory                                |                                                                                                                                                                                                        |                     |                     |                     |
| Maximum sampling speed                        | 50 Gs/s in ETS - 1 Gs/s in single-shot (on each channel)                                                                                                                                               |                     |                     |                     |
| Vertical resolution                           | 12 bits (vertical resolution 0,025%)                                                                                                                                                                   |                     |                     |                     |
| Acquisition memory depth                      | 2500 samples/channel and up to 50000 samples/channel with the « Extended Acquisition Memory » option                                                                                                   |                     |                     |                     |
| User memory<br>« Windows Like » files control | 2 Mb to store different files : trace, text, configuration, mathematical functions, print files, image files, etc.                                                                                     |                     |                     |                     |
| GLITCH mode                                   | Duration ≥ 2 ns - 1250 couples Min/Max (up to 25000 couples with the « Extended Acquisition Memory » option)                                                                                           |                     |                     |                     |
| Display mode                                  | Envelope, Averaging (Factors 2 to 64) and XY (vector)                                                                                                                                                  |                     |                     |                     |
| Other functions                               |                                                                                                                                                                                                        |                     |                     |                     |
| AUTOSET                                       | Search time : < 5 s, with channels recognition – Frequency > 30 Hz                                                                                                                                     |                     |                     |                     |
| FFT analyser & MATH functions                 | FFT (Lin or Log) measurement cursors - Functions + , - , x , / with publishing of mathematical functions                                                                                               |                     |                     |                     |
| Cursors                                       | 2 or 3 cursors : V and T simultaneous or Phase – Resolution : 12 bits - Display : 4 digits                                                                                                             |                     |                     |                     |
| Automatic measurements                        | 19 temporal or level measurements, Phase measurements – Resolution : 12 bits – Display : 4 digits                                                                                                      |                     |                     |                     |
| MUMTIMETER MODE                               |                                                                                                                                                                                                        |                     |                     |                     |
| General specifications                        | 2 or 4 channels – 8000 cts max. + bargraph min/max – TRMS – Time-stamped graphical recording (5 min to 31days )                                                                                        |                     |                     |                     |
| AC, DC, AC + DC voltage                       | 300 mV to 600VRMS, 400mV to 800Vdc - VDC accuracy : 0,5%L+5D – Bandwidth 200 kHz                                                                                                                       |                     |                     |                     |
| Resistance                                    | 80Ω to 32MΩ - Accuracy 0,5%L+ 25D – Fast continuity test : 10 ms                                                                                                                                       |                     |                     |                     |
| Others measurements                           | Capacitance 5nF to 5mF – Frequency 200 kHz – Diode test 3,3 V                                                                                                                                          |                     |                     |                     |
| Measuring window triggering                   | 2 or 4 channels guarded, Configurable default duration – Up to 100 time-stamped default stored in « .TXT » files                                                                                       |                     |                     |                     |
| HARMONICS ANALYSER MODE (option)              |                                                                                                                                                                                                        |                     |                     |                     |
| Multi channel analysis                        | 2 or 4 (depending on model), 61 orders, Fundamental frequency from 40 to 450Hz in auto or manual mode                                                                                                  |                     |                     |                     |
| Simultaneous measurements                     | Total Vrms, THD and selected order (fundamental %, phase, frequency, Vrms)                                                                                                                             |                     |                     |                     |
| RECORDER MODE (option)                        |                                                                                                                                                                                                        |                     |                     |                     |
| Duration / Sampling rates                     | From 2s to 1 month / from 800 μs to 18 min (from 40 μs to 53 s with the « Extended Memory Acquisition option)                                                                                          |                     |                     |                     |
| Recording conditions                          | On thresholds or windows, simultaneous conditions on several channels, with configurable duration from 160 μs                                                                                          |                     |                     |                     |
| Recording analysis                            | Scales et physic units, Automatic or cursor measurements, Time-stamped default searching, zoom, etc...                                                                                                 |                     |                     |                     |
| General specifications                        |                                                                                                                                                                                                        |                     |                     |                     |
| Configuration memory                          | Unlimited – « .CFG » file size : approx. 1 kB                                                                                                                                                          |                     |                     |                     |
| Printing                                      | Ethernet network printing 10 Mb (standard), RS232 (standard), or Centronics (option)                                                                                                                   |                     |                     |                     |
| PC communication                              | Local via Ethernet 10 Mb, RS232 (max. 115 kbs) or USB (option) – « Sx-Metro » application software for PC (option)                                                                                     |                     |                     |                     |
| Network                                       | Remote via Ethernet 10Mo, Web server (remote, «real-time trace», cursors and automatic measurements)<br>FTP server (file exchange with PC) , FTP client (storage on PC hard disk – unlimited capacity) |                     |                     |                     |
| Power supply                                  | NiMh batteries – Approx. 4H between charges – Adjustable power-saving switching<br>Adapter / Fast charge / Multi-voltage (standard) - 98-264 V / 47-63 Hz / < 15 W                                     |                     |                     |                     |
| Security / EMC                                | Security depending on CEI6101-1 (2001) – CEM depending on EN61326-1                                                                                                                                    |                     |                     |                     |
| Mechanical characteristics                    | 265 x 195 x 56 mm - 1,9 kg with batteries - IP51 protection (IP41 for the OX7104)                                                                                                                      |                     |                     |                     |

## Standard delivery

1 oscilloscope, 1 user's manual et 1 remote programming on CD-ROM, 1 adapter / line charger, NiMH batteries pack, 1 or 2\* Probix 1/10 probes, 1 ou 2\* BNC Probix adapters, 1 banana Probix adapter, 1 banana set of cords, 1 crossed Ethernet cord, 1 straight Ethernet cord \*, 1 RS232 cable, SX-METRO data processing software \* and 1 carrying case \*

\* « kit » version in carrying case



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## For assistance and ordering