

Models OX7202<sup>III</sup> & OX7204<sup>III</sup>

Rugged, self-contained, handheld oscilloscope with 200MHz bandwidth



## SPECIFICATIONS

MODELS	OX7202 <sup>III</sup>	OX7204 <sup>III</sup>
<b>INTERFACE</b>		
Screen Specifications	Color LCD 5.7" (115 x 86mm) 320 x 240 – CCFL backlighting	
Display Mode	Vectors with interpolation	
No. of Traces on Screen	Four traces and four references – split screen and full screen modes (tracing zone 110 x 74)	
Front Panel Control	32 direct shortcuts	
Screen Control	Touch screen – Windows-like menus and graphic commands	
<b>VERTICAL</b>		
Vertical Sensitivity	16 ranges from 2.5mV – 200V/div and up to 156 $\mu$ V/div in verticle zoom mode (12-bit converter) – Accuracy $\pm$ 1% of Reading	
Bandwidth	200MHz	
Channels	Two isolated channels	Four isolated channels
Accuracy	$\pm$ 0.1% of Reading	
Input Impedance	1M $\Omega$ $\pm$ 0.5%	
Max Input Voltage	600Vdc, 600Vrms, 850Vpk (DC + peak AC at 1kHz) without 10/1 probe, 1000Vrms with 10/1 probe derating -20 dB/decade from 100kHz to 200MHz	
Vertical Zoom	x5 maximum	
<b>HORIZONTAL</b>		
Time Base Speed	35 ranges from 1ns/div to 200s/div	
Accuracy	$\pm$ 0.1% - Roll mode from 100ms to 200s/div	
Horizontal Zoom	x100 maximum	
<b>DIGITAL MEMORY</b>		
Max. Sampling Speed	100GS/s in ETS – 2.5GS/s in Single Shot Mode on each channel	
Vertical Resolution	12 bits	
Memory Capacity per Channel	"TRC" approx. 10kB, "TXT" approx. 20kB	
User Memory	2MB	
Other Modes	Envelope mode (Factors from 2 to 64)	
XY Mode	Between two from the four traces – math functions and cursors	
<b>OTHER FUNCTIONS</b>		
Autoset	Complete autoset < 3s with recognition of channels, Frequency >30Hz	
Trigger Mode	Automatic Triggered, Single shot, Auto Level 50%	
FT Analyzer & Math Functions	FT, +, -, x, / – Editor of mathematical functions	
Cursors	Two or three cursors: V and T simultaneous or Phase Resolution 12 bits, display four digits	
Power Source	Rechargeable 9V 3.8Ah battery (included)	
Battery Life	Four hour operation when fully charged	
Communication	Ethernet, RS-232, Web Server	

## PRODUCT INCLUDES

OX7202<sup>III</sup> & OX7204<sup>III</sup> Kit

Aluminum carrying case, two PROBIX PRHX1 1/10 Probes 250MHz (600V CAT III), two red and black 1.5m color-coded leads with needle probe tips, two red and black grip probes, two stylus, two Ethernet cables (one straight/one crossover), two for OX7202 & four for OX7204 PROBIX 4mm banana plug adapters, one US power adapter (115/230V), one 110V US power cord, one NiMH 9.6V battery pack, one 512MB SD memory card, SX-METRO software on CD-ROM, Recorder/Harmonic/Power/50K memory option (installed) and user manual on CD-ROM.



## FEATURES

- 5 complementary tools in a single instrument: oscilloscope, FFT analyzer, multimeter/wattmeter, harmonic analyzer on voltage/current/power and recorder
- Sampling rate 2.5GS/s in one-shot mode and 100GS/s in ETS mode (repetitive signals)
- 2 or 4 isolated measurement channels (600V CAT III) and up to 8 traces on screen
- 2 or 4 independent TRMS digital multimeters (8000 counts, 200kHz)
- LCD touch screen and Windows-like menus on screen
- Probix "plug & play" input terminals and smart sensors
- Standard "real-time" FFT analysis and calculation functions on channels
- Multi-interface communication connectors: USB, Centronics and Ethernet
- Memory depth of up to 50,000 points per channel (oscilloscope and recorder modes)
- Triggering on measurement thresholds in oscilloscope and multimeter modes
- Adapter for measuring up to 700Vac RMS 1000Vdc in meter mode
- Web Server (FTP server/client) with cursors and automatic measurements
- MiniFlex<sup>®</sup> sensors, powered by the instrument (sold as accessory)
- Power measurement option included for power measurements



## Models OX7102<sup>III</sup> & OX7104<sup>III</sup>

**Rugged, self-contained,  
handheld oscilloscope with  
100MHz bandwidth**



### ► SPECIFICATIONS

MODELS	OX7102 <sup>III</sup>	OX7104 <sup>III</sup>
<b>INTERFACE</b>		
Screen Specifications	Color LCD 5.7" (115 x 86mm) 320 x 240 – CCFL backlighting	
Display Mode	Vectors with interpolation	
No. of Traces on Screen	Four traces and four references – split screen and full screen modes (tracing zone 110 x 74)	
Front Panel Control	32 direct shortcuts	
Screen Control	Touch screen – Windows-like menus and graphic commands	
<b>VERTICAL</b>		
Vertical Sensitivity	16 ranges from 2.5mV – 200V/div and up to 156µV/div in verticle zoom mode (12-bit converter) – Accuracy ± 1% of Reading	
Bandwidth	100MHz	
Channels	Two isolated channels	Four isolated channels
Accuracy	±0.1% of Reading	
Input Impedance	1MΩ ± 0.5%	
Max Input Voltage	600Vdc, 600Vrms, 850Vpk (DC + peak AC at 1kHz) without 10/1 probe 1000Vrms with 10/1 probe derating -20 dB/decade from 100kHz to 100MHz	
Vertical Zoom	Zoom factor: from 1 to x 100	
<b>HORIZONTAL</b>		
Time Base Speed	35 ranges from 1ns/div to 200s/div	
Accuracy	± 0.1% – Roll mode from 100ms to 200s/div	
Horizontal Zoom	x100 maximum	
<b>DIGITAL MEMORY</b>		
Max. Sampling Speed	100GS/s in ETS – 2.5GS/s in Single Shot Mode on each channel	
Vertical Resolution	12 bits	
Memory Capacity per Channel	"TRC" approx. 10kB, "TXT" approx. 20kB	
User Memory	2MB	
Other Modes	Envelope mode (Factors from 2 to 64)	
XY Mode	Between two from the four traces – math functions and cursors	
<b>OTHER FUNCTIONS</b>		
Autoset	Complete autoset < 3s with recognition of channels, Frequency >30Hz	
Trigger Mode	Automatic Triggered, Single shot, Auto Level 50%	
FT Analyzer & Math Functions	FT, +, -, x, / – Editor of mathematical functions	
Cursors	Two or three cursors: V and T simultaneous or Phase Resolution 12 bits, display four digits	
Power Source	Rechargeable 9V 3.8Ah battery (included)	
Battery Life	Four hour operation when fully charged	
Communication	Ethernet, RS-232, Web Server	



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- Web Server (FTP server/client) with cursors and automatic measurements
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### ► PRODUCT INCLUDES

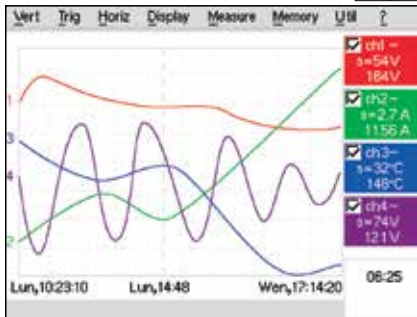
#### OX7102<sup>III</sup> & OX7104<sup>III</sup> Kit

Aluminum carrying case, two red and black 1.5m color-coded leads with needle probe tips, two PROBIX PRHX1 1/10 Probes 250MHz (600V CAT III), two red and black grip probes, two stylus, two Ethernet cables (one straight/one crossover), two for OX7102 & four for OX7104 PROBIX 4mm banana plug adapters; one US power adapter (115/230V), one 110V US power cord, one NIMH 9.6V battery pack, SX-METRO software on CD-ROM, Recorder/Harmonic/Power/50K memory option (installed) and user manual on CD-ROM.

### Models OX7102<sup>III</sup>, OX7104<sup>III</sup>, OX7202<sup>III</sup> & OX7204<sup>III</sup>

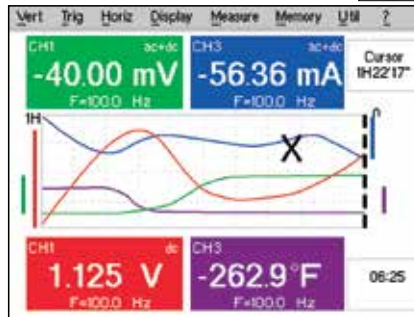
#### Four Tools in One!

##### Recorder



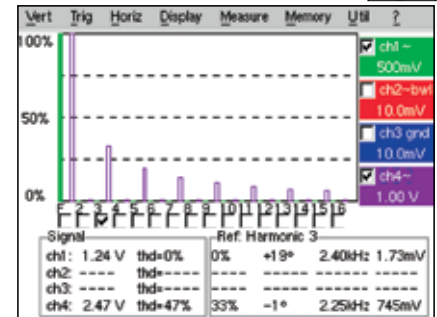
The OX<sup>III</sup> Series supports a great variety of sensors (voltage, current, temperature, 0 to 10V, 4 to 20mA, etc) and displays them in their original physical scale and units.

##### Multimeter



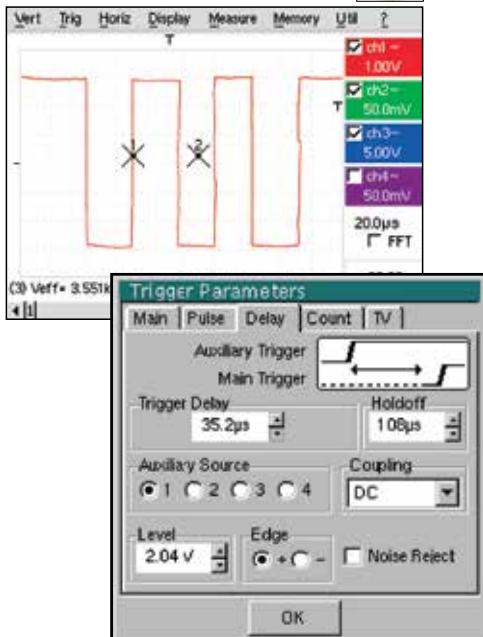
Automatic recording of the measured values are stored in memory on all active channels allowing review of periods lasting from five minutes to 24 hours.

##### Analyzer



Harmonic analysis results are displayed in bargraph form.

##### Oscilloscope



Triggering menu allows selection of type, duration, delay, count and more using touch screen drop-down menu.

#### OPTIONAL ACCESSORIES

##### Probe options for Models OX<sup>III</sup> Series Oscilloscopes

**AmpFlex® 0.5A to 3kA, 200kHz**  
Catalog #2124.91

**MiniFlex® 0.5A to 300A, 3mHz**  
Catalog #2124.92



**PROBIX PRHX5 50Ω Adapter**  
Catalog #2124.75



Visit our storefront for complete list of accessories [www.aemc.com/store](http://www.aemc.com/store)







CATALOG NO.	DESCRIPTION
2124.58	Handheld Oscilloscope Model OX7102 <sup>III</sup> 100MHz (2 x 100MHz, Color, 50k memory, Harmonics, Recorder, Power)
2124.59	Handheld Oscilloscope Model OX7202 <sup>III</sup> 200MHz (2 x 200MHz, Color, 50k memory, Harmonics, Recorder, Power)
2124.67	Handheld Oscilloscope Model OX7104 <sup>III</sup> 100MHz (4 x 100MHz, Color, 50k memory, Harmonics, Recorder, Power)
2124.68	Handheld Oscilloscope Model OX7204 <sup>III</sup> 200MHz (4 x 200MHz, Color, 50k memory, Harmonics, Recorder, Power)

##### Accessories (Optional)

2124.75	PROBIX PRHX5, 50Ω Adapter
2124.91	AmpFlex® 0.5A to 3kA, 200kHz for use with Oscilloscope OX Series
2124.92	MiniFlex® 0.5A to 300A, 3MHz for use with Oscilloscope OX Series

### Oscilloscope & BNC Terminated Probes

**Oscilloscope current probes expand oscilloscope applications in industrial or power measurement environments, and are ideal for analysis and measurement of distorted current waveforms and harmonics**

MODEL	MEASUREMENT RANGE		OUTPUT SIGNAL	PHASE SHIFT*	MAXIMUM CONDUCTOR SIZE		OUTPUT CONNECTION
	AC	DC	VOLTAGE		Ø CABLE	BUS BAR	
 SL261	100mA to 10A 1 to 100A	100mA to 10A 1 to 100A	100mV/AC/DC 10mV/AC/DC	<1.5°	0.46" (11.8mm)	N/A	Lead w/BNC UL
 MN261	0.1 to 24A 0.5 to 240A	—	100mV/AC/AC 10mV/AC/AC	<2.5°	0.78" (19.8mm)	N/A	Lead w/BNC UL
 MR461	0.2 to 40A 0.5 to 400A	0.4 to 60A 0.5 to 600A	10mV/AC/DC 1mV/AC/DC	<1.5°	One 1.18" (30mm) Two 0.95" (24mm) 2 x 500kcmil	Two 1.2 x 0.4" (31.5 x 10mm)	Lead w/BNC
 MR561	0.2 to 100A 0.5 to 1000A	0.4 to 150A 0.5 to 1500A	10mV/AC/DC 1mV/AC/DC	<1.5°	One 1.5" (39mm) Two 0.98" (25mm)	One 1.96 x 0.49" (50 x 12.5mm) Two 1.96 x 0.19" (50 x 5mm)	Lead w/BNC
 SR661	0.1 to 12A 0.1 to 120A 1 to 1200A	—	100mV/AC/AC 10mV/AC/AC 1mV/AC/AC	<1°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Lead w/BNC UL
 JM861	1 to 30A 1 to 300A 1 to 3000A	—	10mV/AC/AC 1mV/AC/AC 0.1mV/AC/AC	<1°	2.52" (64mm) 2.52 x 3.94" (64 x 100mm)	1.97 x 5.31" (50 x 135mm)	Lead w/BNC

\*Phase shift indicated at maximum rating.

Note: All probes are rated 600V CAT III and CE compliant. Not all models are UL approved; please consult factory.

CATALOG NO.	DESCRIPTION
1201.51	AC/DC Current Probe Model SL261 (10A-100mV/A, 100A-10mV/A, BNC)
2115.82	AC Current Probe Model MN261 (24A-100mV/A, 240A-10mV/A, BNC)
1200.72	AC Current Probe Model MR461 (60A-10mV/A, 600A-1mV/A, BNC)
1200.73	AC Current Probe Model MR561 (150A-10mV/A, 1500-1mV/A, BNC)
2113.49	AC Current Probe Model SR661 (10A-100mV/A, 100A-10mV/A, 1000A-1mV/A, BNC)
2110.90	AC Current Probe Model JM861 (30A-10mV/A, 300A-1mV/A, 3000A-0.1mV/A, BNC)