

# Handheld Battery Operated Oscilloscope/DMM

TekScope® THS700 Series • THS730A • THS720A • THS710A

## Features

### THS730A/THS720A/THS710A

- 200, 100, and 60 MHz Bandwidth
- 1 GS/s, 500 MS/s, 250 MS/s Sampling Rates per Channel
- Two Channels and Dual Digitizers
- External Trigger
- 3-3/4 Digit DMM with Datalogger
- Roll Mode
- Extra Bright Backlit Display
- 8 ns Glitch Capture
- Independently Floating Isolated Scope and DMM Channels for Safety
- Advanced Trigger – Delay, Pulse, and Video (Line Count and Field Select)
- NiCd Battery and AC Adapter
- 21 Automatic Measurements
- RS-232 Programmability/Communications
- Deluxe Soft Carrying Case



### THS730A/THS720A/THS710A/ TekScope Series

The TekScope THS700A Series Scope/DMM combines a full-featured Digital Real-Time™ oscilloscope with a True RMS digital multi-meter in rugged, battery-operated instruments. Scope and meter modes can operate simultaneously and independently on the same or separate signals. The high-resolution, backlit display and pop-up menus make it easy for users to take full advantage of the instrument's many features. These include cursors, video trigger, voltage and resistance measurements, and storage of waveforms, data, and instrument setups. In addition, they offer the most comprehensive triggering capabilities – external trigger and extensive triggering including delay, pulse width, and video.

The THS700A Series is ideal for electronic applications – at the bench or at the site.

The THS700A Series shares measurement features with the THS720P Scope/DMM which includes features to address the needs of electric/power electronics measurements.

## Characteristics

### OSCILLOSCOPE FUNCTIONS

- Channels** – Two.
- Sensitivity** – 5 mV to 50 V/div (to 500 V/div with 10X probe).
- Position Range** – ±10 div.
- DC Gain Accuracy** – ±2%.
- Vertical Resolution** – 8-Bits.
- Record Length** – 2500 points.
- Horizontal Accuracy** – ±200 ppm.
- Roll Mode** –  $\geq 0.5$  s/div.
- Autorange** – User-selectable.
- Trigger Modes** – Auto, Normal.
- Trigger Types** – Edge, Pulse, Video, External.
- Video Trigger Formats and Field Rates** – Odd field, even field, and line.
- External Trigger Input** – 5 MHz TTL compatible.
- Waveform Processing** – Add, Subtract, Multiply, Calculate Watts =  $V \times I$ .
- Waveform Storage** – 10 waveforms.
- Acquisition Modes** – Sample, Envelope, Average, Peak Detect.
- Cursor Measurements** – \*delta Volts, delta \*Time,  $1/*deltaTime$  (Hz), Degree (phase).
- Cursor Types** – Horizontal Bars, Vertical Bars, Paired (volts @ time).
- Display System** – Interpolation:  $\text{Sin}(x)/x$ .
- Format** – YT and XY.
- Mode: Vector, Dot, Vector Accumulate, Dot Accumulate.

### AUTOMATIC MEASUREMENTS:

Period	Frequency
+Width	-Width
Rise Time	Fall Time
+Duty Cycle	-Duty Cycle
+Overshoot	-Overshoot
High	Max,
Low	Min,
Peak-to-Peak	Amplitude
Mean	RMS
Cycle Mean	Cycle RMS,
Burst Width	-

### OSCILLOSCOPE FUNCTIONS

	THS730A	THS720A	THS710A
Bandwidth	200 MHz	100 MHz	60 MHz
Sample Rate (Each Channel)	1 GS/s	500 MS/s	250 MS/s
Time/Division Range	2 ns to 50 s/div	5 ns to 50s/div	10 ns to 50s/div

Product(s) available through your local Tektronix Distributor listed in the back of this catalog.



See Tektronix on the World Wide Web:  
<http://www.tek.com>



**ISO 9001** Tektronix measurement products are manufactured in ISO registered facilities.

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TekScope® THS700 Series • THS730A • THS720A • THS710A

## DMM SPECIFICATIONS

**DC Voltage Ranges** – 400.0 mV to 880 V.

**DC Volts Accuracy** –  
±(0.5% of reading + 5 counts).

**True RMS AC Voltage Ranges** –  
400.0 mV to 640 V.

**Maximum Float Voltage** – 600 VRMS each  
channel (probe dependent).

**Resolution** – 4000 count, 3-3/4 digits.

**AC Volts Accuracy** –  
±(2% of reading + 5 counts).

**Resistance Ranges** – 400.0 Ω to 40.00 MΩ.

**Resistance Accuracy** – ±(0.5% of reading + 2  
counts); 40 MΩ: ±(2% of reading + 5 counts).

**Diode Test Range** – 0 to 2 V.

**Continuity Check** – Audible tone when < 50 Ω.

**Modes** – Min, Max, delta \*Max-Min, Avg, Hold.

**Non-volatile Storage** – 10 DMM screenshots.

**External Trigger Input** –  
5 MHz TTL compatible.

**Vertical Zoom Capability** – 2X, 5X, 10X.

**dB Scale** –  
Selectable, referenced from 1 mV to 10 V.

**dBm Scale** – Selectable, referenced from  
50 Ω to 600 Ω.

## GENERAL SPECIFICATIONS

**Setups** – 10 front-panel setups.

**Safety Certification** – UL 3111-1 Listed,  
CSA Certified, complies with EN61010-1.

**Power** – NiCd rechargeable battery pack with  
AC adapter (both included).

**Battery Life** – Approx. 2 hours from full  
charge.

**Display** – Backlit LCD.

**Display Resolution** – 320 x 240.

## PHYSICAL CHARACTERISTICS

Dimensions	mm	in.
Width	177	6.95
Height	217	8.53
Depth	51	2
<b>Weight</b>	<b>kg</b>	<b>lbs.</b>
Net	1.45	3.2

## ORDERING INFORMATION

For price information: Outside the U.S. contact your local Tektronix representative,  
inside the U.S. see the price list in the back of this catalog.

### THS730A, THS720A, THS710A

Handheld Battery Operated Oscilloscopes/DMM.  
**Includes:** Two P6117 10X Passive Probes, User  
Manual, Quick Reference Manual, Standard Meter  
Lead Set, NiCd Rechargeable Battery Pack, AC  
Power Adapter, Soft Carrying Case, Cable and  
Adapters for RS-232, NIST-traceable Certificate  
of Calibration.

### THS700A LANGUAGE OPTIONS

**Opt. L1** – French User Manual.

**Opt. L2** – Italian User Manual.

**Opt. L3** – German User Manual.

**Opt. L4** – Spanish User Manual.

**Opt. L5** – Japanese User Manual.

**Opt. L6** – Portuguese User Manual.

**Opt. L7** – Simplified Chinese User Manual.

**Opt. L8** – Traditional Chinese User Manual.

**Opt. L9** – Korean User Manual.

### THS700A POWER ADAPTER OPTIONS

**Opt. A1** – European power plug.

**Opt. A2** – UK power plug.

**Opt. A6** – Japanese power plug.

### RECOMMENDED ACCESSORIES

Also see page 500.

**P5102** – 10X 100 MHz Passive Probe for higher  
voltage application: 1000V<sub>RMS</sub> Tip-to-reference;  
600 V<sub>RMS</sub> Reference-to-earth Ground (float).

**A621, A622** – Current Probes for scope operation.

**A605** – Current Probes for DMM operation.

**P6117 (replacement)** – 10X Passive Probe.

**Battery Charger** – THS7CHG.

**Rechargeable Battery (replacement)** – THS7BAT.

**Hard Carrying Case** – THS7HCA.

**Standard Meter Lead Set (replacement)** –  
012-1482-00.

**Deluxe Meter Lead Set** – ATLDX1.

**Programming Manual** – 070-9751-00.

**Service Manual** – 070-9752-00.

**Soft Carrying Case (replacement)** – 016-1399-01.

**WSTR0** – WaveStar™ software for oscilloscopes.  
Windows 95/NT application for waveform capture,  
analysis, documentation and control from your PC.

**WSTR0U** – Upgrade from WSTR31 to WSTR0.

**WSTR31** – WaveStar software for Windows 3.1.

**WSTR31U** – Upgrade from DocuWave® software  
to WSTR31.

### WARRANTY

Three years (excluding probes).

### TEKTRONIX MEASUREMENT SERVICE

Tektronix CAL and REP Service programs allow  
you to pre-purchase genuine Return to Tektronix  
Services – ask your Distributor for details.

Product(s) available through your local Tektronix  
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