

Handheld Digital Oscilloscopes

TekScope™ Series • THS710A • THS720A • THS730A • THS720P



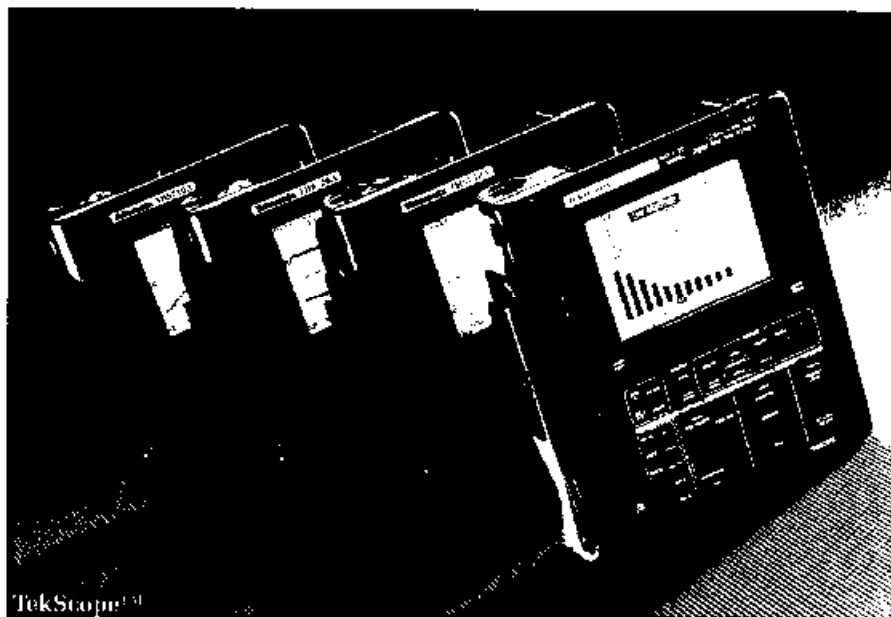
Features

THS710A, THS720A, THS730A AND 720P

- 200, 100 and 60 MHz Bandwidths
- 1GS/s, and 500 and 250 MS/s per Channel Sampling Rates
- 2 Channels with 2 Digitizers
- Independently Floating Isolated Scope and DMM Channels for Safety
- 3-3/4 Digit DMM with Datalogger
- Hands-Free Autoranging
- Roll Mode
- Extra Bright Backlit Display
- 8 ns Glitch Capture
- Independently Floating Isolated Channels
- Pulse Width and Video Triggers
- NiCd Battery and AC Adapter
- 21 Automatic Measurements
- RS-232 Programmability
- Deluxe Soft Case

THS720P (only)

- Measures Harmonics up to 31st
- Automatic Power Measurement with Statistics



THS 700 Series Handheld Digital Oscilloscopes

The TekScope™ Series combines a full-featured Digital Real-Time oscilloscope with a True RMS digital multimeter 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.

OSCILLOSCOPE SPECIFICATIONS

Channels – 2.

Sensitivity – 5 mV to 50 V/div (to 500 V/div with 10X probe).

Position Range – ± 10 div.

DC Gain Accuracy – $\pm 2\%$

Vertical Resolution – 8-Bits

Record Length – 2500 points.

Horizontal Accuracy – ± 200 ppm.

Roll Mode – ≥ 0.5 s/div.

Autorange – User selectable

Trigger Modes – Auto, Normal.

Trigger Types – Edge, Pulse, Video.

Video Trigger Formats and Field Rates

Triggers on Field 1, Field 2, or Lines.

External Trigger Input – 5 MHz TTL compatible. Selectable 200 mV or 2 V trigger level.

Motor Trigger (THS720P only) – Triggers on 3- and 5-level pulse-width modulated power signal.

Waveform Processing – Add, Subtract, Multiply, Calculate Watts – $V \times I$.

Waveform Storage – 10 waveforms.

Acquisition Modes – Sample, Envelope, Average, Peak Detect.

Cursor Measurements – Δ Volts, Δ Time, and $1/\Delta$ Time.

Cursor Types – Horizontal Bars, Vertical Bars, Paired (volts @ time).



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



ISO 9001 Tektronix Measurement
instruments are manufactured
in ISO registered facilities.

Characteristics

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

Handheld Digital Oscilloscopes

TekScope™ Series • THS710A • THS720A • THS730A • THS720P

Display System –

Interpolation: Sin(x)/x.
Mode: Vector, Dot, Vector Accumulate, Dot Accumulate.
Format: Y1 and XY.

Automatic Measurements –

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

Harmonics – Up to 31st (50/60 Hz)

Harmonic Amplitude Accuracy

(% of reading) –

Fundamental	2 -11	12-21	22 -31
±2%	±2%	±4%	±6%

Harmonic Phase Accuracy (% of reading) –

Fundamental	2 -11	12-21	22 -31
	±2%	±8%	±8%

Power Measurements –

W	True Power
VA	Apparent power
VAR	Reactive power
V	Volts (RMS, Peak)
A	Amps (RMS, Peak)
IHD-F	Total harmonic distortion as a percentage of the fundamental (accuracy ±4%)
THD-R	Total harmonic distortion of the RMS of the input signal (accuracy ±4%)
PF	Power factor (accuracy ±4%)
DPF	Displacement power factor
φ	Phase difference between the voltage and current

DMM SPECIFICATIONS

DC Voltage Ranges – 400.0 mV to 880 V.

DC Volts Accuracy – ±(0.5% of rdg + 5 cts)

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

Maximum Float Voltage – 600 V RMS each channel.*

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

AC Volts Accuracy – ±(2% of rdg + 5 cts).

Resistance Ranges – 400.0 Ω to 40.00 MΩ

Resistance Accuracy – ±(0.5% of rdg + 2 cts), 40 MΩ ±(2% of rdg + 5 cts)

Diode Test Range – 0 to 2 volts.

Continuity Check – Audible tone when < 50 Ω.

Modes – Min, Max, ΔMax-Min, Avg, Hold

Non-Volatile Storage – 10 DMM screenshots

* Probe dependent

GENERAL SPECIFICATIONS

Setups – 10 front panel setups.

Safety Certification – UL 3111-1 Listed, 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.

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.

HARDCOPY CAPABILITY

Printer Formats – ThinkJet, DeskJet, LaserJet, Epson 9- or 24-pin, DPU 411/II and DPU 412 Thermal Printer

File Formats – IMGG, TIFF, PCX, BMP, EPS.

Hardcopy Layout – Landscape or portrait.

PROGRAMMABILITY

Interface – RS-232

Mode – Full talk/listen.

Baud Rate – Selectable from 300 to 38,400.

PHYSICAL CHARACTERISTICS

Dimensions	mm	in.
Width	177	6.95
Height	217	8.53
Depth	51	2.00
Weight	kg	lb.
Net	1.45	3.2

ORDERING INFORMATION

THS730A, THS720A, THS720P, THS710A

HANDBELED DIGITAL OSCILLOSCOPES

Includes: Two P6117B 10X Passive Probes (THS700A), Two P5102 10X High-voltage Probes (THS720P), 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

THS700 LANGUAGE OPTIONS

Option L1 – French User Manual

Option L2 – Italian User Manual

Option L3 – German User Manual

Option L4 – Spanish User Manual

Option L5 – Japanese User Manual

Option L6 – Portuguese User Manual

Option L7 – Simplified Chinese User Manual

Option L8 – Traditional Chinese User Manual

Option L9 – Korean User Manual

THS700 INTERNATIONAL POWER ADAPTER OPTIONS

Option A1 – European Power Plug

Option A2 – UK Power Plug

Option A6 – Japanese Power Plug

THS700 RECOMMENDED ACCESSORIES

P5102 (standard THS720P) – 10X 100 MHz Passive Probe for higher voltage application, 1000 V_{FMV}, Tip-to-reference, 600 V RMS Reference-to-earth Ground (float)

A621, A622 – Current Probes for scope operation.

A605, A610 – Current Probes for DMM operation

P6117B (standard THS700A) – 10X 200 MHz 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.

Printer – IIC411.

WaveStar Electronic Lab Notebook Software – WSTR31. Windows-based software to capture waveforms and settings from Tektronix DSOs.

WARRANTY

Three years (excluding probes).