

Monochrome InstaVu™ Acquisition Oscilloscope

TDS 540C

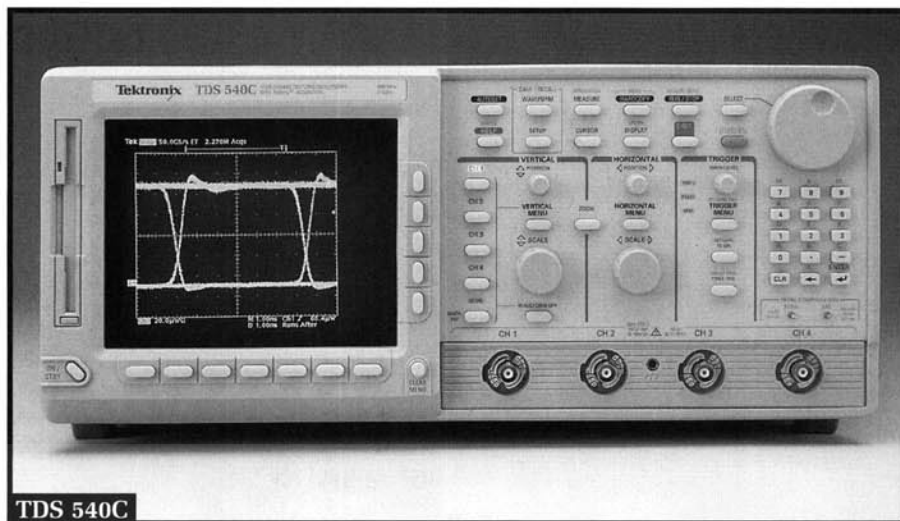
★ Features

TDS 540C

- Be Confident You're Seeing Actual Signals with 500 MHz Bandwidth and $\pm 1\%$ Accuracy
- InstaVu Acquisition Lets You Find Elusive Infrequent Glitches Instantly with Highest Waveform Capture Rate Available on a DSO.
- Connect and Acquire Four Channels Simultaneously with Full 1 mV to 10 V/div Sensitivity
- Speed up Your Circuit Analysis with 29 Built in Automatic Measurements, Waveform Histograms and Measurement Statistics
- Easily Trigger on Error-causing Conditions with a Full Complement of Advanced Trigger Modes
- Capture Transient Events to the Full Scope Bandwidth with its 2 GS/s max Sample Rate

A Applications

- Digital and Analog Design
- Prototype Debug
- Research and Development



The TDS 540C combines the high performance and ease of use of the familiar TDS oscilloscopes to provide the most comprehensive debug and measurement solutions for engineers who need to connect to, capture, and characterize their complex, high-speed electronic designs.

Characteristics

VERTICAL SYSTEM

Bandwidth –
DC to 500 MHz*1.

Input Channels –
TDS 540C: 4.

Maximum Real-Time Sample Rate –
TDS 540C:

- 1 channel: 2 GS/s.
- 2 channels: 1 GS/s.
- 3 and 4 channels: 500 MS/s.

Equivalent-Time Sample Rate –
100 GS/s max.

Max Sample-Rate Window –
4 ms.

Sensitivity –
1 mV to 10 V/div (1 mV to 1 V/div in 50 Ω mode).

DC Gain Accuracy –
 $\pm 1\%$.

Vertical Resolution –
8 bits (256 levels over 10.25 div), >13 bits with HiRes, 11 bits with averaging.

Input Impedance –
1 M Ω in parallel with 10 pF or 50 Ω (AC and DC coupling).

Maximum Input Voltage
300V CAT II – ± 400 V peak.

*1 ≥ 2 mV/div in 50 Ω mode.

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>



Tektronix measurement products
are manufactured in ISO
registered facilities.



Product(s) complies with IEEE Standard
488.1-1987, and with Tektronix Standard
Codes and Formats.

Monochrome InstaVu™ Acquisition Oscilloscope

TDS 540C

TIME BASE SYSTEM

Time Basesm –
Main, Delayed.

Time/Div Range –
500 ps to 10 s/div.

Time Base Accuracy –
±25 ppm over any interval ≥1 ms.

ACQUISITION SYSTEM

Acquisition Modes –
InstaVu™, Peak Detect, Sample, Single-Sequence, Envelope, Average, HiRes, FastFrame™.

Record Length –
50 K/channel standard. Up to 500K on one channel optional.

TRIGGER SYSTEM

Trigger Types –
Edge, Logic (pattern, state, setup/hold), Pulse (glitch, runt, width, slew rate, timeout).

MEASUREMENT SYSTEM

Automatic Measurements –
29 (on up to 500 K waveform or in gated region).

Measurement Statistics – Minimum, maximum, mean, standard deviation.

Cursor Measurements – Absolute and delta: volts, time, and frequency.

Advanced Waveform Functions –
FFT (optional), Limit testing, Waveform histograms.

STORAGE

Floppy Drive –
3.5-in. DOS compatible.

DISPLAY SYSTEM

Monitor –
7-in. monochrome 640 X 480 VGA.

OUTPUTS

VGA Out – Monochrome.

Computer Interface – GPIB.

Hardcopy Ports – GPIB, RS-232, Centronics.

Hardcopy Formats

Epson, Thinkjet, Deskjet, Laserjet, PostScript, TIFF, PCX, BMP, DPU411/412, RLE, HPGL, Interleaf.

POWER

90 to 250 V RMS, 45 to 440 Hz,
300 W maximum.

PHYSICAL CHARACTERISTICS

Dimensions	mm	in.
Height	193	7.6
Width	445	17.5
Depth	432	17.0
Weight	kg	lb.
Net	14.1	31

SAFETY CERTIFICATION

UL 3111-1, CSA-22.2 No. 1010.1.



SG Labs
test & measurement instruments

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.

TDS 540C

Four-channel Digitizing Oscilloscope.
Includes: P6139A probes (4 each), Front Cover, User Manual, Quick Reference Guide, Performance Verification, Calibration Certificate, Programmer's Manual (MS-help format floppy disk), U.S. Power Cord.

OPTIONS

Opt XL– Includes FFT and advanced math, and 500 K max record length.

SOFTWARE

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.

LVWIN95 – LabVIEW® for Windows 95.

LWCVI95 – LabWindows/CVI for Windows 95.

RECOMMENDED ACCESSORIES

See page 500.

Scope Cart – Order K420.

Rackmount Kit – 016-1236-00.

RECOMMENDED PROBES

P5100– 2.5 kV High-Voltage Probe.

P5205– High-Voltage Differential Probe.

P6243– 1 GHz Active Voltage Probe.

P6246– 400 MHz Differential Probe.

TCP202– DC to 50 MHz Current Probe.

WARRANTY

Three years, covering all labor and parts, including CRT. One-year warranty on probes.

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.



Product(s) complies with IEEE Standard 488.1-1987, and with Tektronix Standard Codes and Formats.