

**Purchase a second-hand TDS 210 (in like new condition) from Teledac Inc**  
for more information please click on: [http://teledac.com/ex-equip\\_b.htm](http://teledac.com/ex-equip_b.htm)

**Tektronix**

## Digital Storage Oscilloscopes

**TDS210**



## Digital Storage Oscilloscopes

TDS210 \* TDS220 \* TDS224



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**This product is discontinued.**

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Check [long term product support](#) status.

### CHARACTERISTICS

#### Signal Acquisition System

**Bandwidth -**

TDS210: 60 MHz.

TDS220: 100 MHz.

TDS224: 100 MHz.

**Sample Rate -**

1 GS/s on each channel.

**Channels -**

TDS210 and TDS220: 2 identical channels plus external trigger.

TDS224: 4 identical channels.

**Sensitivity (with calibrated fine adjustment) -**

2 mV to 5 V/div (bandwidth limited to 20 MHz at 2 mV/div and 5 mV/div, in all modes, and 20 MHz at 10 mV/div in Peak Detect mode).

**Vertical Zoom -**

Vertically expand or compress a live or stopped waveform.

#### Calibrated Position Range

Volts/Div Setting	Offset Range
2 mV to 200 mV/div	±2 V
>200 mV to 5 V/div	±50 V

**DC Gain Accuracy -** ±3%. (±4% at 2 mV/div and 5 mV/div).

**Vertical Resolution -**

8-Bit (256 levels over 10.24 vertical divisions).

#### Automatic Measurements

Period, frequency, cycle RMS, mean, peak-to-peak.

#### Acquisition Modes

**Sample, Average, Peak Detect -** High frequency and random glitch capture; captures glitches as narrow as 10 ns using acquisition hardware at all time/div settings between 5 µs/div and 5 s/div.

#### Time Base System (main and Window)

**Horizontal Zoom -** Horizontally expand or compress a live or stopped waveform.

**Time/Division Range -** 5 ns to 5 s/div.

**Record Length -** 2,500 sample points per channel.

**Horizontal Accuracy -** ±0.01%.

## Nonvolatile Storage

**Waveform Display** - Two 2,500 point reference waveforms.

**Waveform Storage** - Two 2,500 point reference waveforms (TDS210, TDS220), four 2,500 point reference waveforms (TDS224).

**Setups** - 5 front panel setups.

## Triggering System (main Only)

**Trigger Type** - Edge (rising or falling), video, set to 50%.

**Video Trigger Type** - Triggers on fields or lines from composite video; triggers on broadcast standard NTSC, PAL or SECAM video.

**Trigger Modes** - Auto, normal, single sweep.

**Trigger Source** -

TDS210 and TDS220: CH1, CH2, Ext, Ext/5 and AC Line.

TDS224: CH1, CH2, CH3, CH4 and AC Line.

**Trigger View** - Displays trigger signal while trigger view button depressed.

## Cursors

**Types** - Voltage, time.

**Measurements** - Delta T, 1/Delta T, Delta V.

## Waveform Processing

**Arithmetic Operators** - Add, subtract.

**Sources** - CH1±CH2, CH3±CH4 (TDS224).

**Autoset** - Single button automatic setup on selected input signal for vertical, horizontal and trigger systems.

## Display System

Robust, backlit LCD with adjustable multilevel contrast.

**Interpolation** - Sin(x)/x.

**Display Modes** - Vectors, dots.

**Persistence** - Off, 1 sec, 2 sec, 5 sec, infinite.

**Format** - YT and XY.

## Hardcopy Capability (requires Modules)

**Printer/File Formats** - Thinkjet, Deskjet, Laserjet, Epson (9- or 24-Pin), BMP, PCX, IMG, EPS, DPU 411, DPU 412.

**Hardcopy Layout** - Landscape or portrait.

## TDS2CM Communications Extension Module

### Centronics-type Parallel Port

**RS-232 Programmability** - Full talk/listen modes. Control of all modes, settings and measurements. Baud rate up to 19,200. 9-Pin, DTE.

**GPIB Programmability** - Full talk/listen modes. Control of all modes, settings and measurements (IEEE Std 488-1987).

Includes WaveStar™ Software for Oscilloscopes 30 day product demo.

## TDS2MM Measurement Extension Module

**FFT - Windows:** Hanning, Flat Top, Rectangular.

**Sample points:** 2,048.

**Automatic Measurements -** Rise/fall time, positive/negative pulse width.

**Interface -** Centronics, RS-232, GPIB.

## Environmental and Safety

### Temperature -

Operating: 0°C to +50°C.

Nonoperating: -20°C to +60°C.

### Humidity -

Up to 90% RH at or below +40°C;

Up to 60% RH from 41°C to 50°C (operating and nonoperating).

### Altitude -

Up to 3,000 m (operating).

### EMC -

Meets Directive 89/336/EEC, GOST.

**Safety -** UL3111-1, CSA1010.1, IEC61010-1, EN61010-1.

## Physical Characteristics

Dimensions	mm	in.
Width	304.8	12.0
Height	151.4	5.96
Depth	120.7	4.75
Weight	kg	lb.
Oscilloscope only	1.5	3.25
w/accessories	1.7	3.75

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Product(s) complies with IEEE Standard 488.1-1987, RS-232-C, and with Tektronix Standard Codes and Formats.



Tektronix Measurement products are manufactured in ISO registered facilities.



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