

The Tektronix TDS520B oscilloscope is a graph-displaying device – it draws a graph of an electrical signal. In most applications, the graph shows how signals change over time: the vertical (Y) axis represents voltage and the horizontal (X) axis represents time. The intensity or brightness of the display is sometimes called the Z axis.

The Tektronix TDS520B oscilloscope's simple graph can tell you many things about a signal, such as: the time and voltage values of a signal, the frequency of an oscillating signal, the “moving parts” of a circuit represented by the signal, the frequency with which a particular portion of the signal is occurring relative to, other portions, whether or not a malfunctioning component is distorting the signal, how much of a signal is direct current (DC) or alternating current (AC) and how much of the signal is noise and whether the noise is changing with time.

Performance Characteristics of the TDS520B

Form Factor	Benchtop
Bandwidth	500 MHz
Number of Channels	2 ch
Simultaneous Channels	2 ch
Simultaneous Maximum Sampling Rate/ch	500 MSa/s
One ch. only max. sampling rate	1 GSa/s
Max. Record Length	50000 pt/sec
Min. Vertical Sensitivity	1 mV/div
Maximum Vertical Sensitivity	10 V/div
Channel to Channel Delay	50 ps
Rise time	700 ps
Number of Bits	8 bits
Input Impedance	1 MOhm
Input Impedance (alternate)	50 Ohm
Input Coupling	AC,DC,GND
Maximum Input Voltage	400 Vrms
Main time base - lowest	500 ps/div
Main time base - highest	10 s/div
Timebase accuracy	.0025 %
Trigger Source	External,Internal
Trigger Modes	Auto,Edge,Logic,Normal,Pulse,Single
Minimum Trigger Holdoff	16 ns
Minimum Glitch Trigger	1 ns
Display Type	Color CRT
Display Size	17.78 cm
Display modes	Dot,Persistence,Vector
Display Update Rate	150 wv/sec