

Oscilloscope Timebase Calculator

Estimate displayed time window, waveform period, and frequency from an entered oscilloscope timebase, division count, and visible cycles.

Generated October 10, 2026

<https://www.elecatrix.com/testing-protection-grounding/oscilloscope-timebase-calculator/>

Inputs

Input	Value	Unit
Seconds per division	0.001	s/div
Horizontal divisions	10	div
Cycles in window	2	cycles

Results

Result	Value	Unit
Time window	0.01	s
Period	0.005	s
Frequency	200	Hz
Seconds per division used	0.001	s/div
Horizontal divisions used	10	div
Cycles in window used	2	cycles

Calculation details

Detail	Value	Unit
Calculation basis	The displayed time window equals seconds per division multiplied by horizontal divisions. Period equals the time window divided by the observed cycles.	
Screening boundary	Ideal timebase arithmetic only; verify probe compensation, triggering, sample rate, bandwidth, waveform interpretation, and instrument uncertainty separately.	

Formulas

time window seconds = seconds per division x horizontal divisions

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$\text{period seconds} = \text{time window seconds} / \text{cycles in window}$

$\text{frequency hertz} = 1 / \text{period seconds}$

Warnings and limitations

This is idealized timebase arithmetic only. It does not certify oscilloscope accuracy, bandwidth, sample rate, triggering, probe behavior, or waveform interpretation.