

Digital Storage Oscilloscope auto-measurements test

v1.1

Determines if scope makes auto-measurements based on main sample memory or secondary buffer.
Buffer size and auto-measurements accuracy across timebases can be deduced from test data.

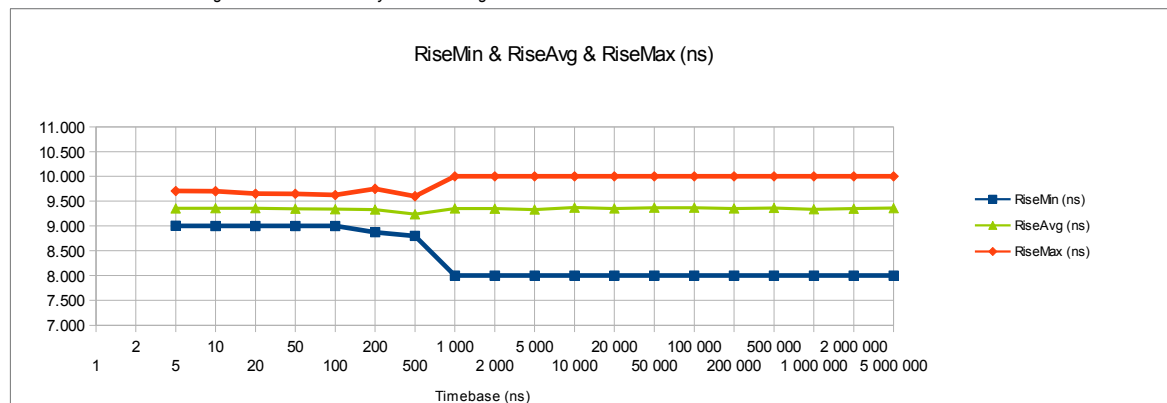
Test conducted by: info@lab.fyi
Date: 03/07/2017

Oscilloscope under test: PicoScope 2408B
Production year: 2016
Calibration date: 07/01/2106
Hardware version: 1
Firmware version etc: 1.3.3.0 / 1.0.51.0
Driver version: 1.3.0.10
Vertical setting (V/div): +-500mV (100mV/div)
Channels in use: 1
Channel coupling: AC
Comments: 1,2ns timebases too fast for 9ns rise, skipped. 1000x averaging. Used -25ns&25ns cursors to force rise reading on slow timebases.

Test waveform: square wave, 50% duty
Frequency: 32768Hz
Risetime: 9ns
Jitter: 150ps rms
Amplitude: 900mVpp
Signal generator: Siglent SDG2000X
Comments: 50ohm system

horizontal setting	as reported by DSO	90%/10%	90%/10%	90%/10%			
Timebase (ns/div)	Sampling rate (MSa/s)	RiseMin (ns)	RiseAvg (ns)	RiseMax (ns)	PeriodMin (us)	PeriodAvg (us)	PeriodMax (us)
1							
2							
5	20,000	9.004	9.357	9.705			
10	20,000	9.001	9.358	9.702			
20	20,000	9.001	9.358	9.651			
50	20,000	9.000	9.347	9.650			
100	16,000	9.000	9.340	9.625			
200	8,000	8.875	9.331	9.750			
500	2,500	8.800	9.237	9.600			
1 000	1,000	8.000	9.355	10.000			
2 000	1,000	8.000	9.351	10.000			
5 000	1,000	8.000	9.331	10.000	30.52	30.52	30.52
10 000	1,000	8.000	9.372	10.000	30.52	30.52	30.52
20 000	1,000	8.000	9.354	10.000	30.52	30.52	30.52
50 000	1,000	8.000	9.371	10.000	30.52	30.52	30.52
100 000	1,000	8.000	9.371	10.000	30.52	30.52	30.52
200 000	1,000	8.000	9.352	10.000	30.52	30.52	30.52
500 000	1,000	8.000	9.364	10.000	30.52	30.52	30.52
1 000 000	1,000	8.000	9.336	10.000	30.52	30.52	30.52
2 000 000	1,000	8.000	9.351	10.000	30.52	30.52	30.52
5 000 000	1,000	8.000	9.361	10.000	30.52	30.52	30.52

Switch chart vertical axis to log scale if values differ by orders of magnitude



Switch chart vertical axis to log scale if values differ by orders of magnitude

