

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 idea by MrWolf@EEVblog forum.

Equipment must be warmed up (30 min). Stats must be reset when changing ranges. Averaging (if applied) must not affect Min/Max.

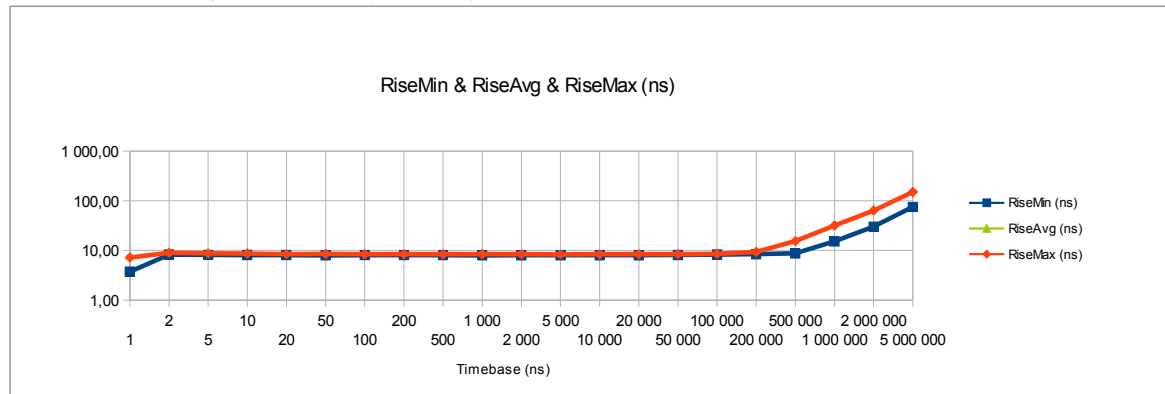
Test conducted by: JPB
Date: 12/17/2016

Oscilloscope under test: LeCroy WaveJet 334
Production year: 2005??
Calibration date:
Hardware version:
Firmware version etc:
Vertical setting (V/div): 200mV
Channels in use: 1
Channel coupling: AC
Comments:

Test waveform: square wave, 50% duty
Frequency: 32768Hz
Risetime: <= 10ns
Jitter: <= 1ns
Amplitude: 1Vpp
Signal generator:
Comments:

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	2 000,00	3,74		7,22			
2	2 000,00	8,246		8,986			
5	2 000,00	8,12		8,71			
10	2 000,00	8,06		8,68			
20	2 000,00	8,06		8,44			
50	2 000,00	7,96		8,50			
100	2 000,00	8,00		8,39			
200	2 000,00	8,00		8,42			
500	2 000,00	8,00		8,38			
1 000	2 000,00	7,94		8,38			
2 000	2 000,00	7,98		8,41			
5 000	2 000,00	7,99		8,33	30,51		30,51
10 000	2 000,00	7,99		8,38	30,51		30,51
20 000	2 000,00	7,99		8,40	30,51		30,51
50 000	1 000,00	8,11		8,42	30,51		30,51
100 000	500,00	8,26		8,58	30,51		30,51
200 000	250,00	8,40		9,32	30,51		30,51
500 000	100,00	8,70		15,40	30,51		30,51
1 000 000	50,00	15,20		31,80	30,51		30,51
2 000 000	25,00	30,00		63,60	30,51		30,51
5 000 000	10,00	75,00		150,00	30,51		30,51

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

