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 affext Min/Max.

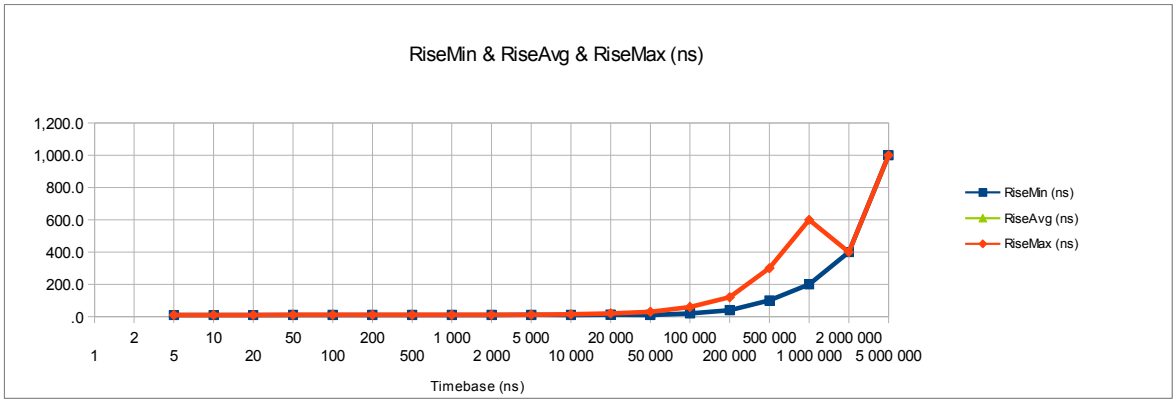
Test conducted by:	rf-loop@EEVBlog forum
Date:	12/14/2016

Oscilloscope under test:	**Siglent SDS1102X+**
Production year:	
Calibration date:	
Hardware version:	
Firmware version etc:	
Vertical setting (V/div):	
Channels in use:	
Channel coupling:	
Comments:	

Test waveform:	square wave, 50% duty
Frequency:	32768Hz
Risetime:	<= 10ns
Jitter:	<= 1ns
Amplitude:	10Vpp
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	n/a						
2	n/t						
5	1 000,00	9.8		10.2			
10	1 000,00	9.8		10.2			
20	1 000,00	9.8		10.2			
50	1 000,00	10.0		11.0			
100	1 000,00	10.0		11.0			
200	1 000,00	10.0		11.0			
500	1 000,00	10.0		11.0			
1 000	1 000,00	10.0		11.0			
2 000	1 000,00	10.0		11.0		30.52	
5 000	1 000,00	11.0		12.0		30.52	
10 000	1 000,00	10.0		14.0		30.52	
20 000	1 000,00	12.0		20.0		30.52	
50 000	1 000,00	10.0		30.0		30.51	
100 000	1 000,00	20.0		60.0		30.50	
200 000	1 000,00	40.0		120.0		30.48	
500 000	1 000,00	100.0		300.0		30.50	
1 000 000	1 000,00	200.0		600.0		30.40	
2 000 000	500,00	400.0		400.0		30.40	
5 000 000	50,00	1,000.0		1,000.0		30.00	

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



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