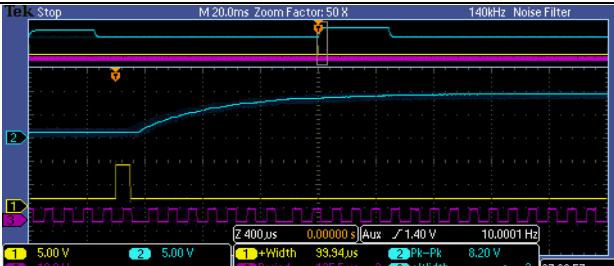
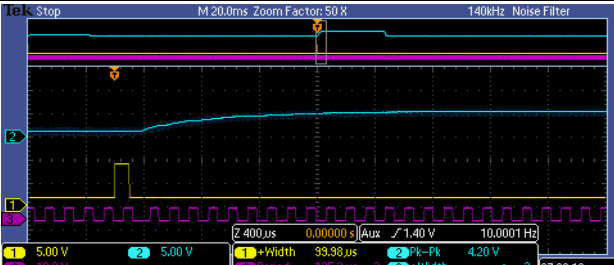
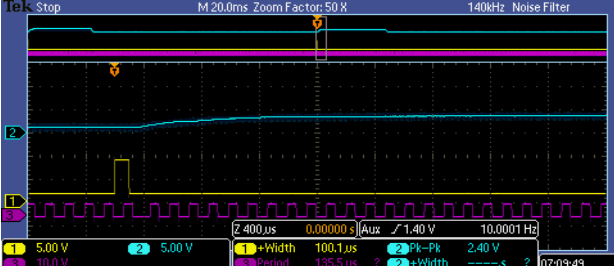
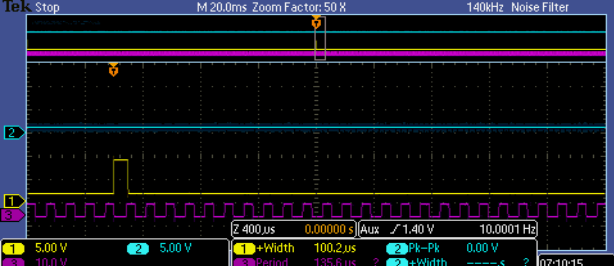


Tek Filename Suffix	Filter Length	Pulse Width (mS)	Pulse Type	Filter Setting	Scope Traces	Notes
TEK00089.PNG	1	0.1	Pulse with small offset	0		Filter length = 1 with 100 μ S input pulse. The purple trace shows the analogue input sampling. Sampling takes place when this trace is high (=5 V). One can see that when the sampling is taking place the entire input pulse is present, hence the peak is detected.
TEK00090.PNG	1	0.1	Pulse with small offset	0		Filter length = 1 with 100 μ S input pulse. The purple trace shows the analogue input sampling. Sampling takes place when this trace is high (=5 V). One can see that when the sampling is taking place the input pulse is decreasing and the overlap with the sampling time and so less of the peak value is measured.
TEK00091.PNG	1	0.1	Pulse with small offset	0		Filter length = 1 with 100 μ S input pulse. The purple trace shows the analogue input sampling. Sampling takes place when this trace is high (=5 V). One can see that when the sampling is taking place the input pulse is decreasing and the overlap with the sampling time and so even less of the peak value is measured.
TEK00092.PNG	1	0.1	Pulse with small offset	7		Filter length = 1 with 100 μ S input pulse. The purple trace shows the analogue input sampling. Sampling takes place when this trace is high (=5 V). One can see that when the sampling is taking place the input pulse is missed completely and there is no overlap with the sampling time and so nothing of the peak value is measured.

This set of results illustrates the limitations of the peak detection at very small pulses. So we recommend that the minimum pulse width that can be captured reliably is 200 μ S.