Classwork 7

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4e – Values of Pulse Integration Index, Transmit Gain, Scan Start, Scan Stop

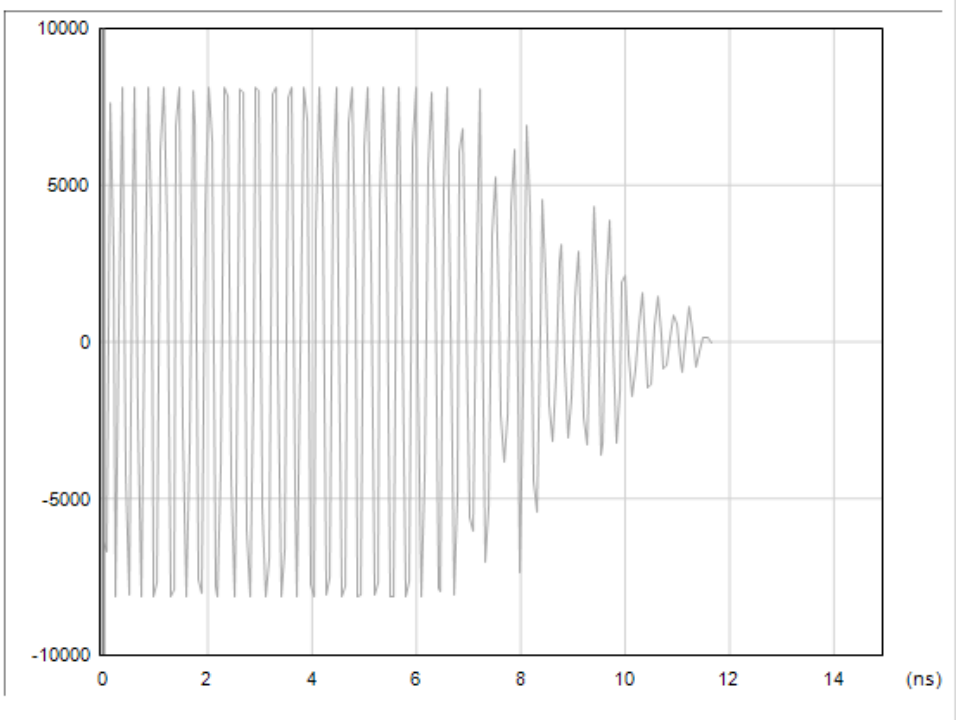
Message ID	65
Node ID	104
Pulse Int Index	6 - 64 Pulses per Symbol
Antenna Mode	2 - Tx on A, Rx on B
Code Channel	6
Transmit Gain	63
Persist	1 - Write to Flash

Scanning

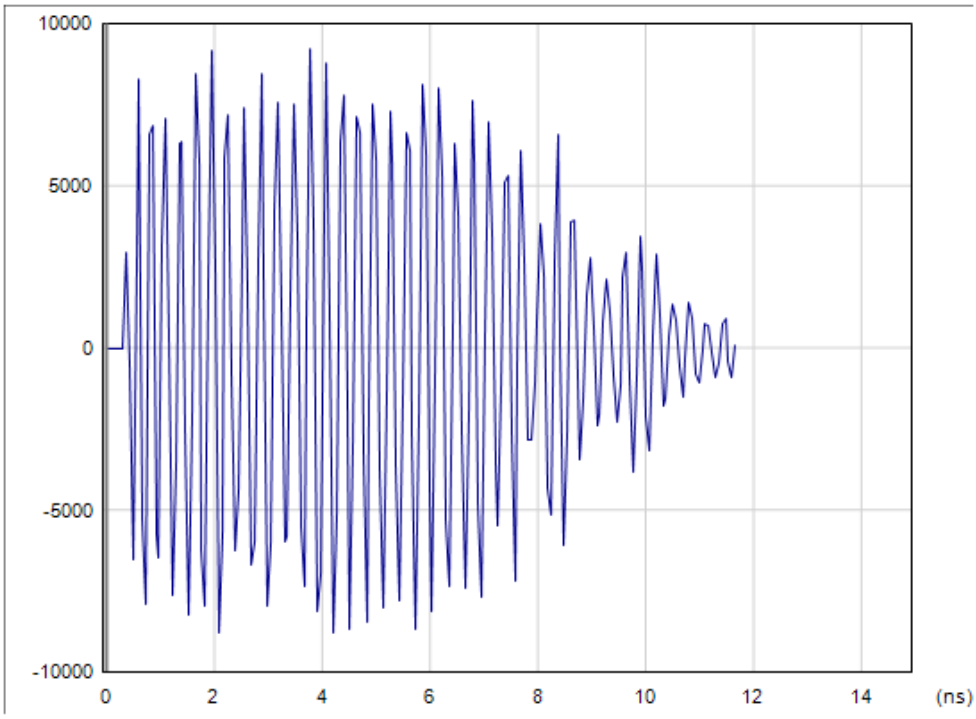
Scan start	11625	ps
Scan stop	23344	ps
Step size	32	bins

6 – Scans with initial Settings

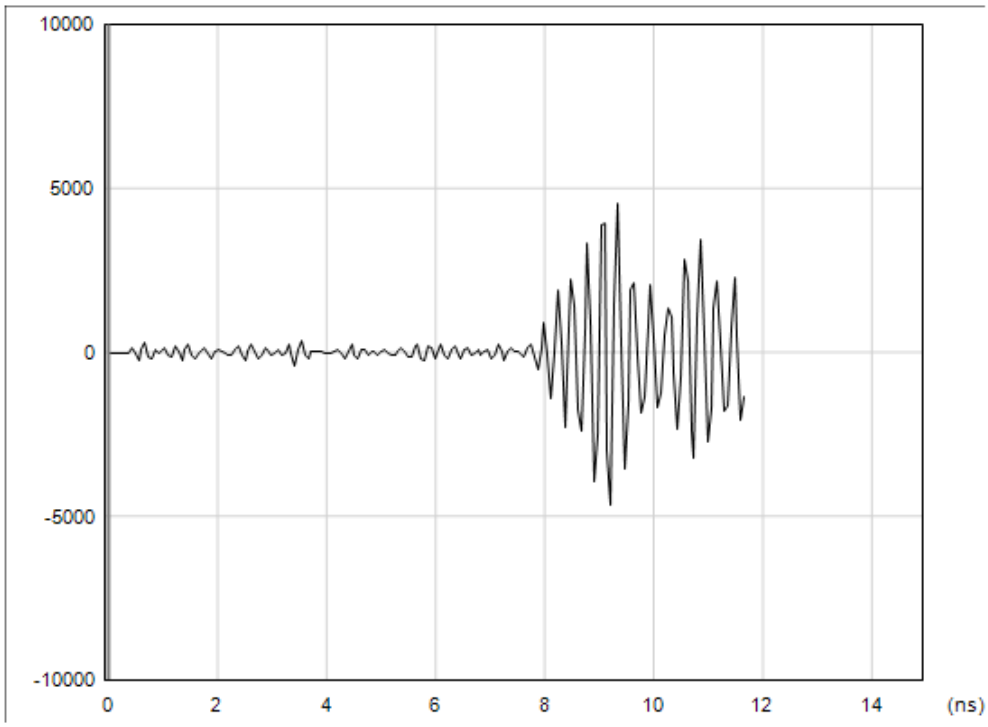
Raw – Peak Signal 7000



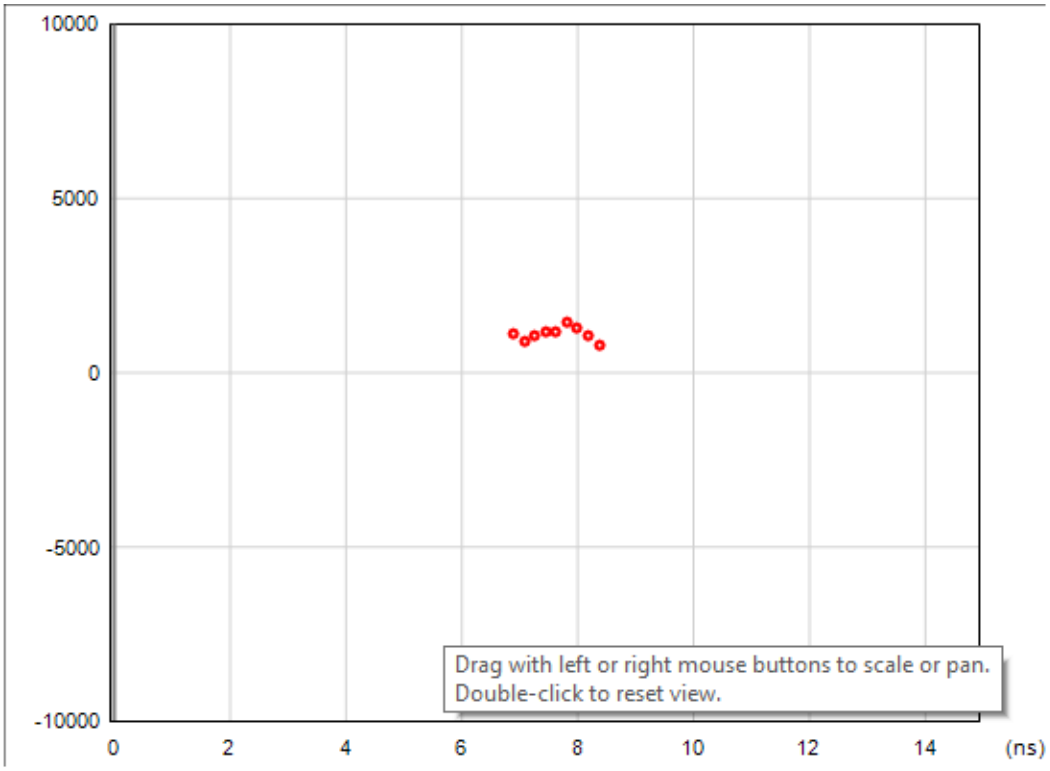
Bandpass – Peak Value: 9500



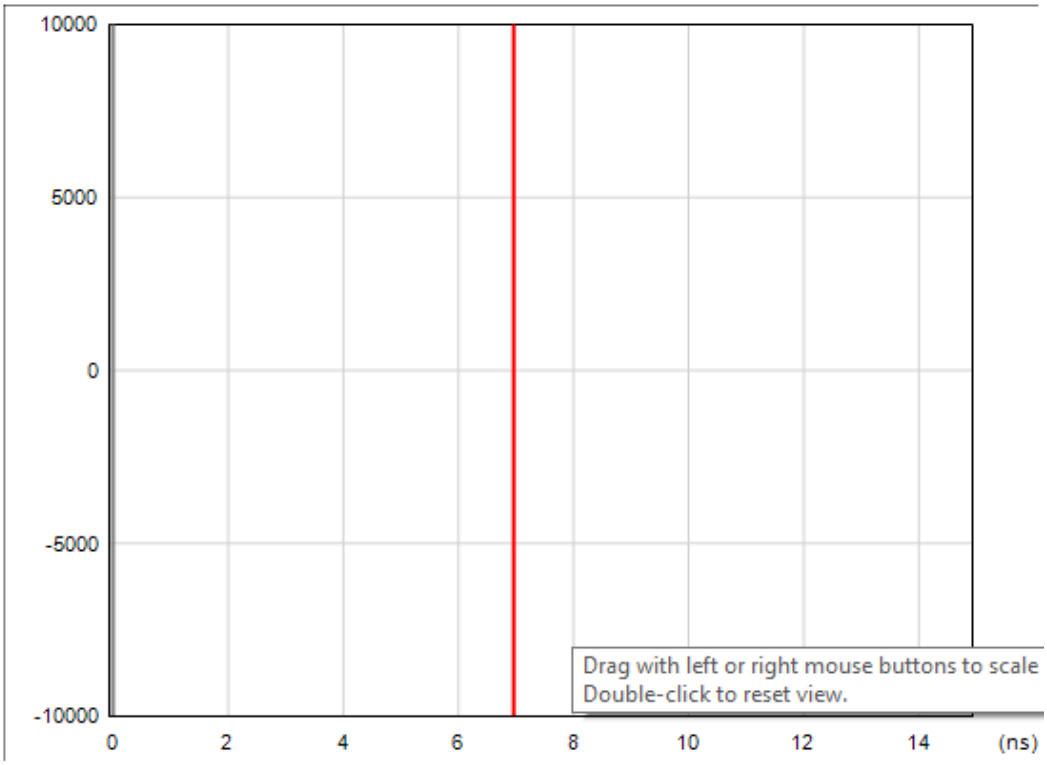
Motion Filtered – Peak Value: 4900



Detections – Peak Value: 100

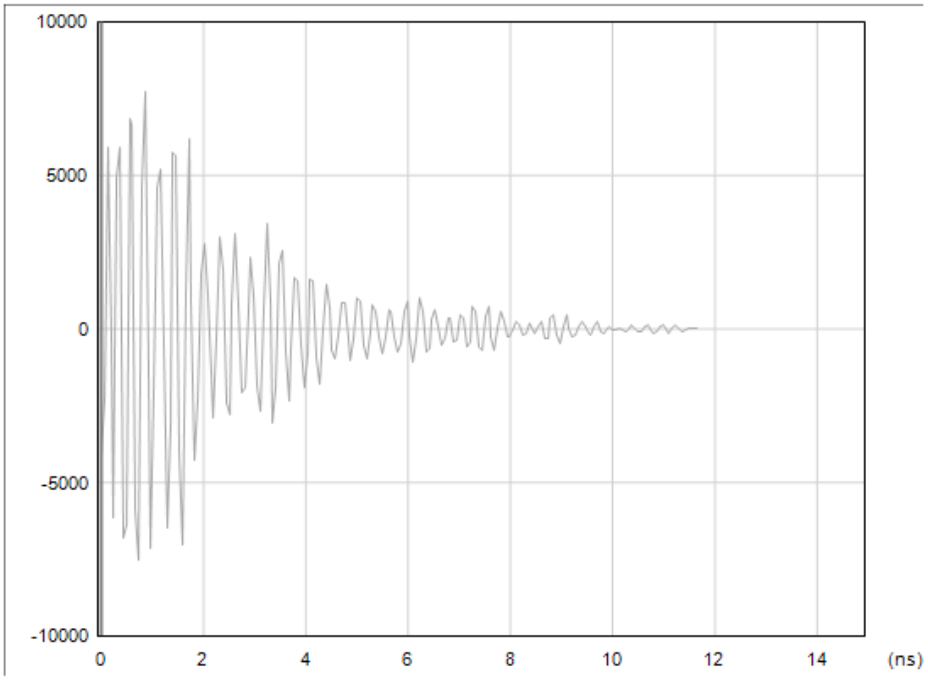


First Detection – Peak Value: 10000 @ 7 ns

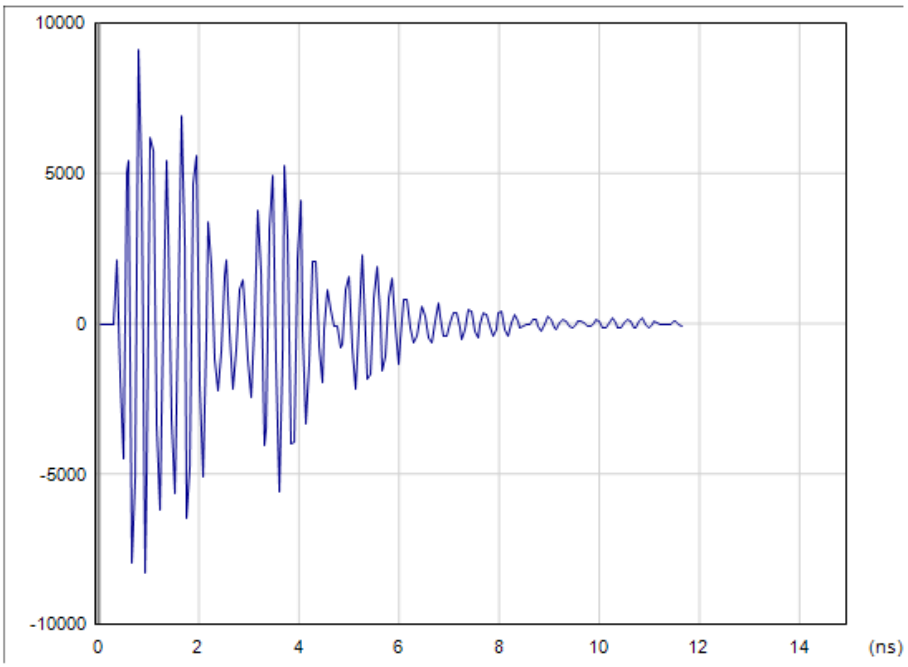


7 – Scans with Transmit Gain 0

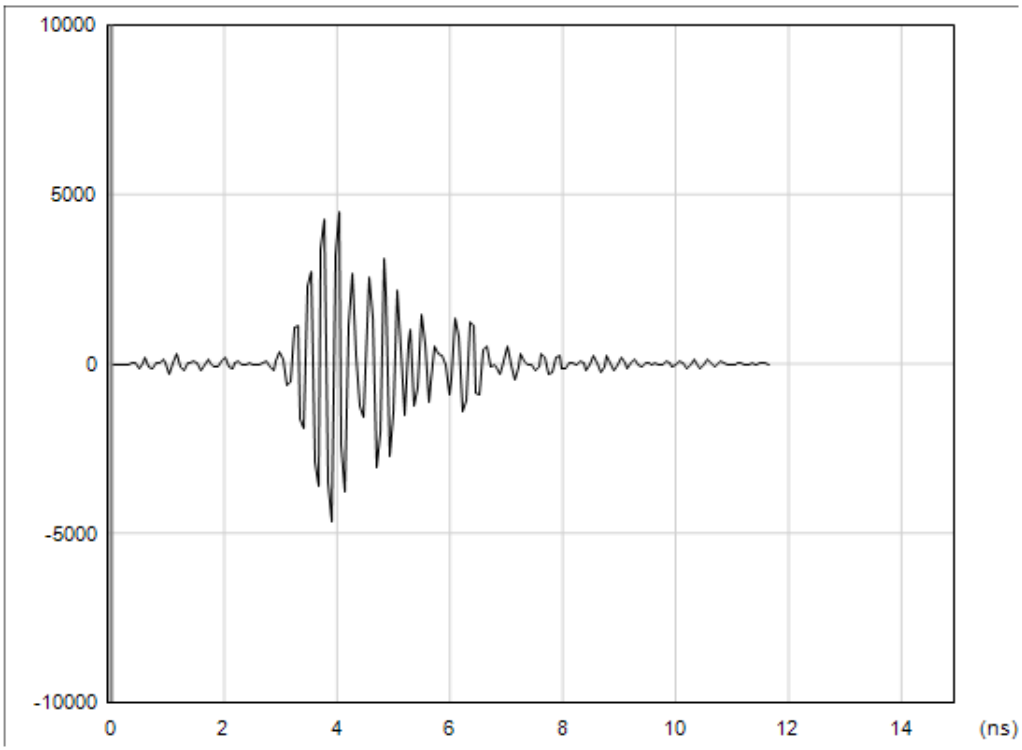
Raw – Peak Value: 7000



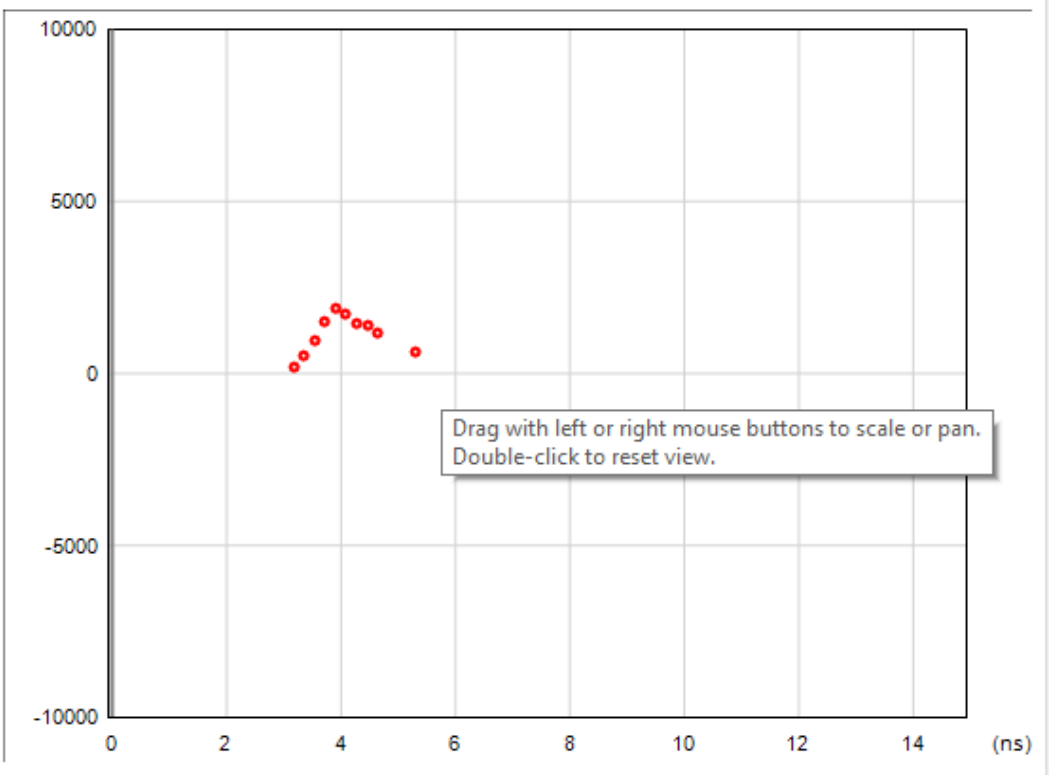
Bandpass – Peak Value: 9000



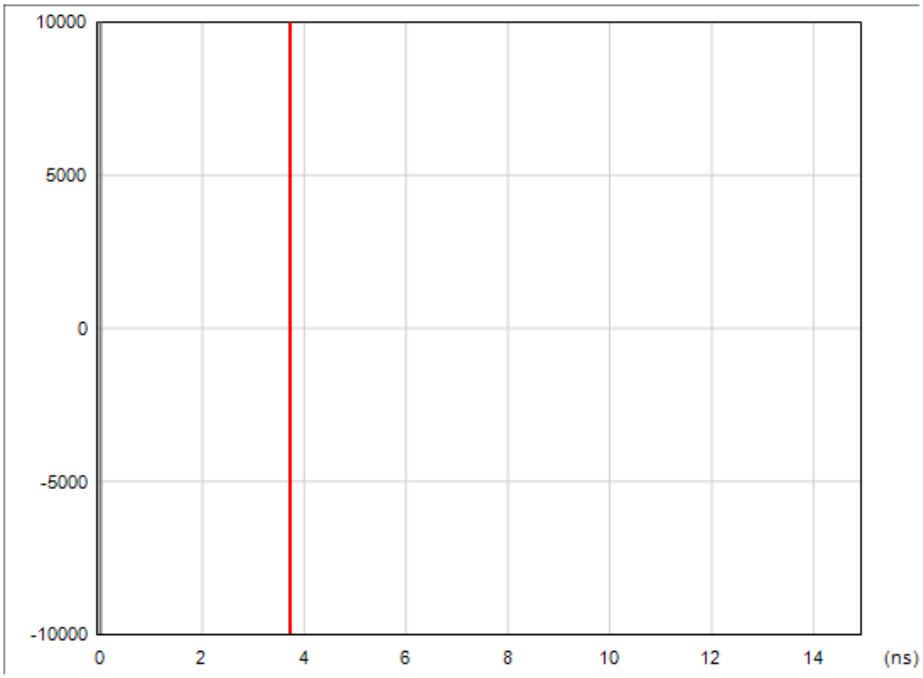
Motion Filtered – Peak Value: 4700



Detections – Peak Value: 3000



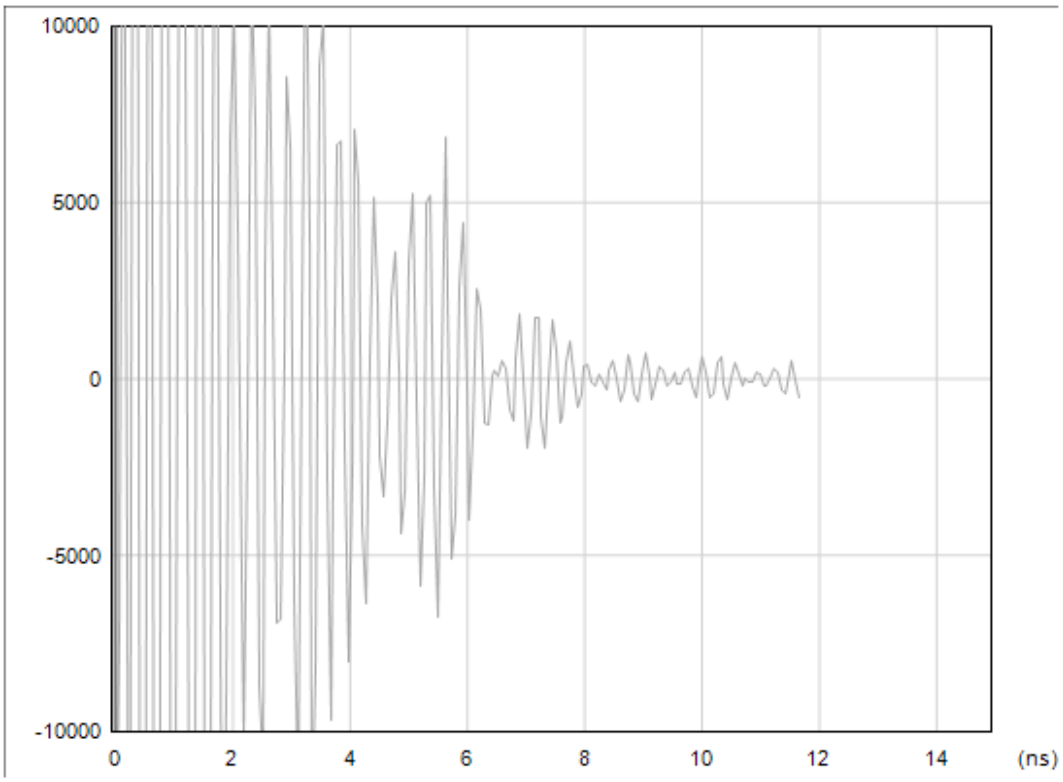
First Detection – Peak Value 10000 @ 3.7 ns



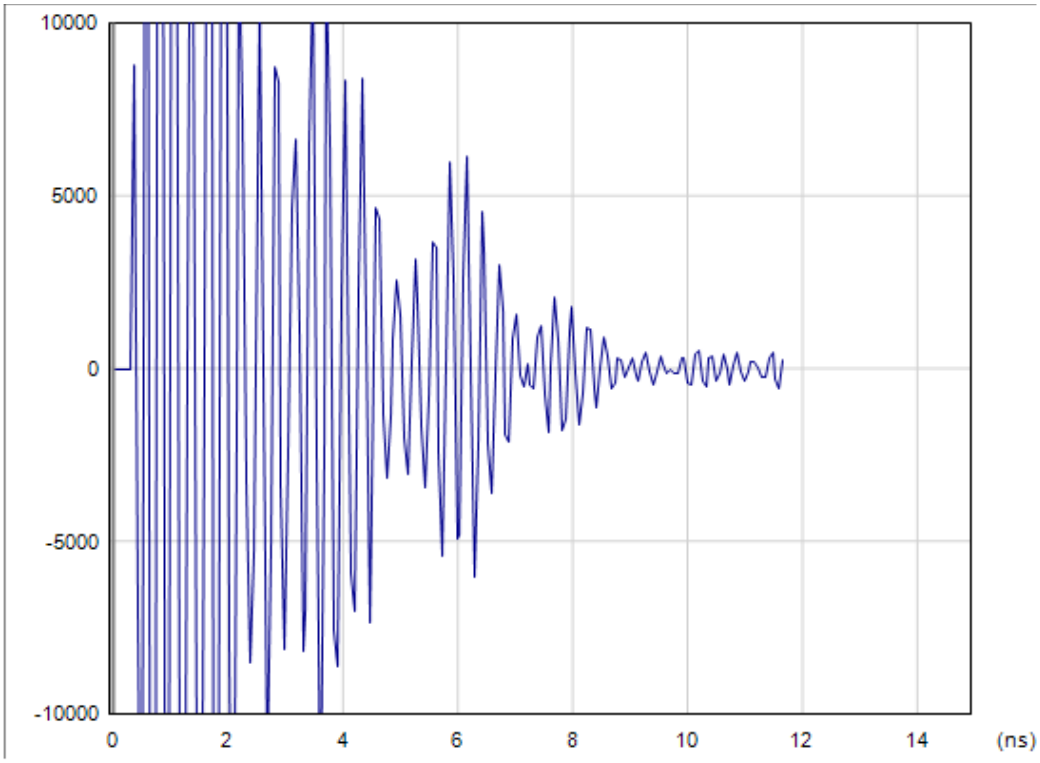
8 – Change Pulse Integration Index to 8

Changing the Pulse Integration Index to 8 allowed the system to gather more data from each pulse. We saw more noise reduction which means that the signal is stronger and more reliable.

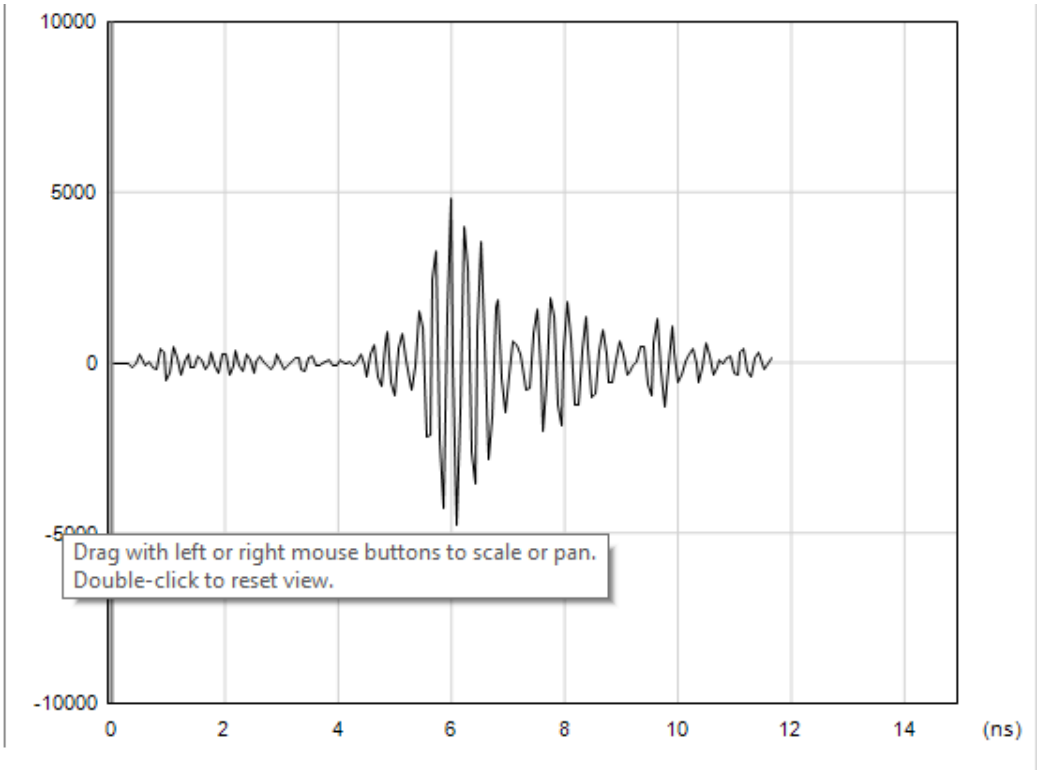
Raw – Peak Value: 7000



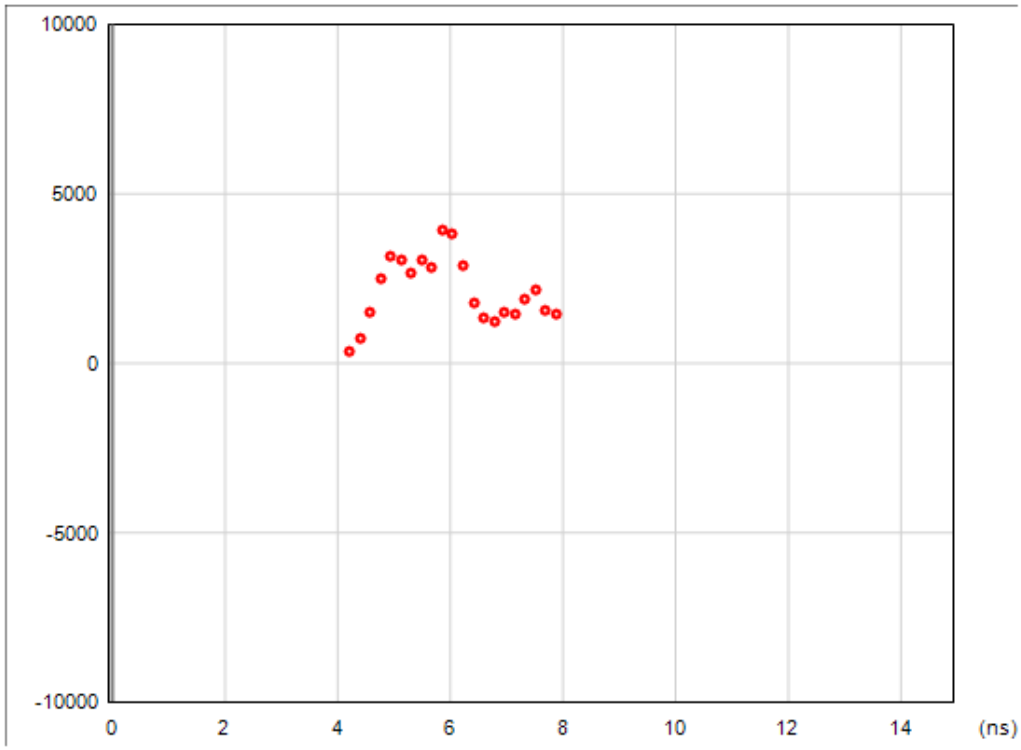
Bandpass – Peak Value: 7000



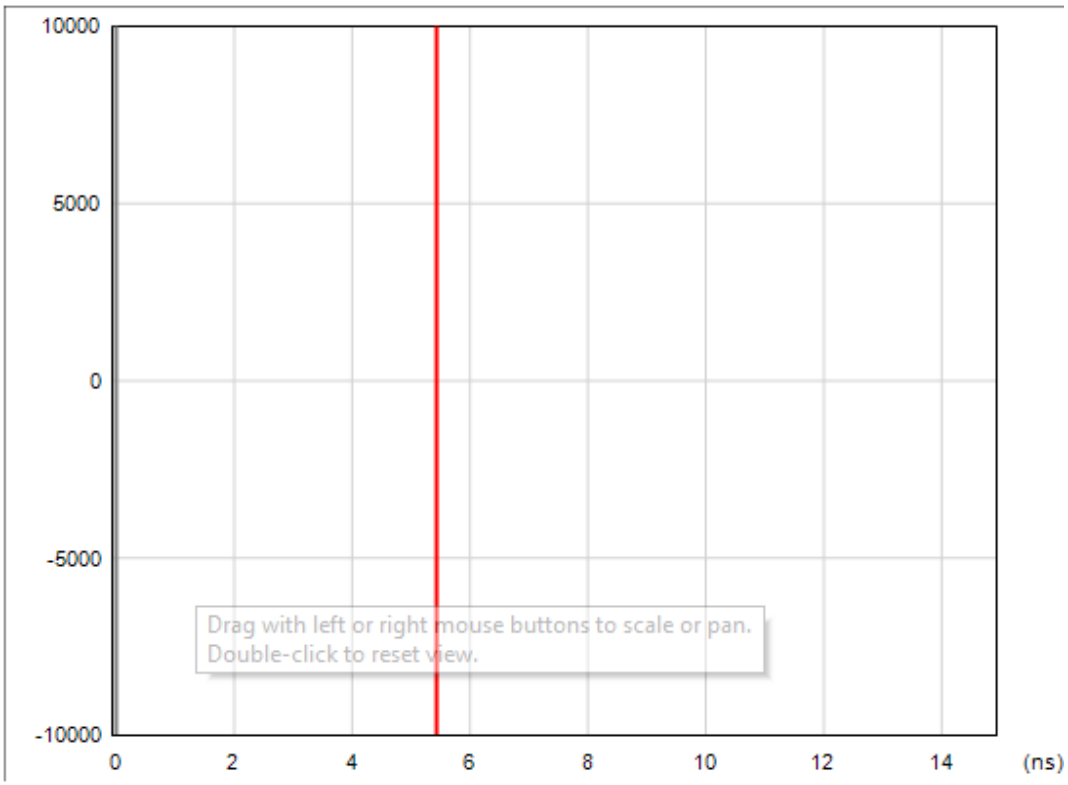
Motion Filtered – Peak Value: 5000



Detection – Peak Value: 4500



First Detection – Peak Value 10000 @ 5.7 ns



11 – Plot of the data