

Technical Note - TN29

Spectrum of the RS105 and of the PCI pulses

Bertrand Daout, montena technology, 1728 Rossens, Switzerland

1. RS105 pulse 2.3 / 23 ns

The calculated time domain waveform and spectrum of the MIL-STD-461 RS105 HEMP pulses are given below.

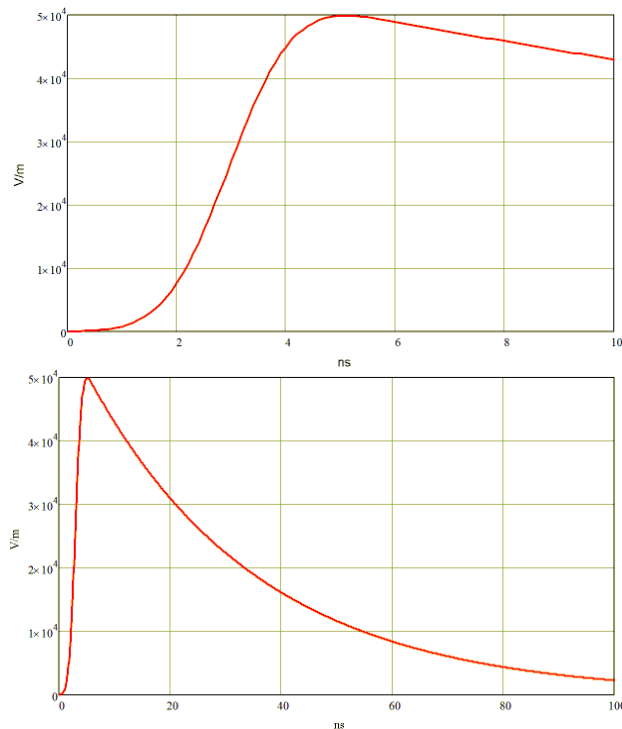


Figure 1: time domain waveform - 2 ns / div and 20 ns / div

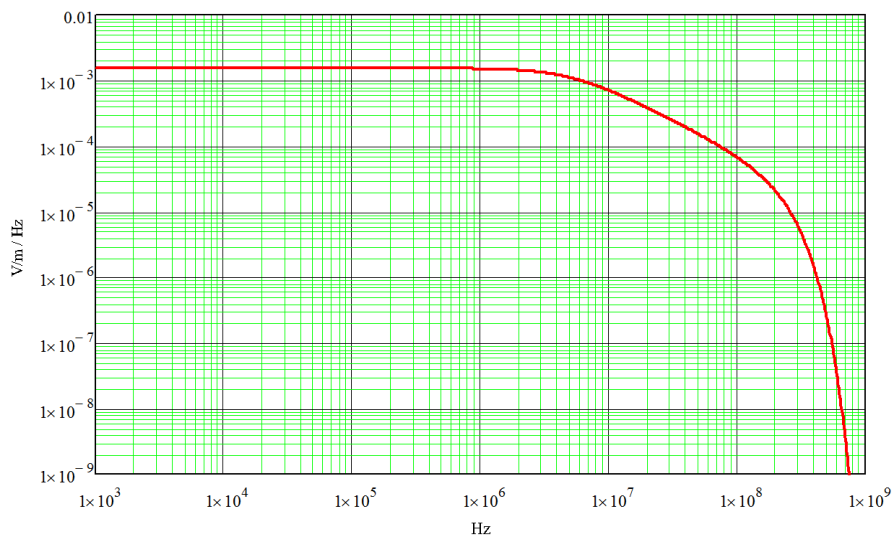
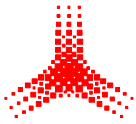


Figure 2: spectrum – log - log representation



2. PCI short pulse 18 / 550 ns

The calculated time domain waveform and spectrum of the PCI short pulse according to MIL-STD-188-125-1/2 are given below.

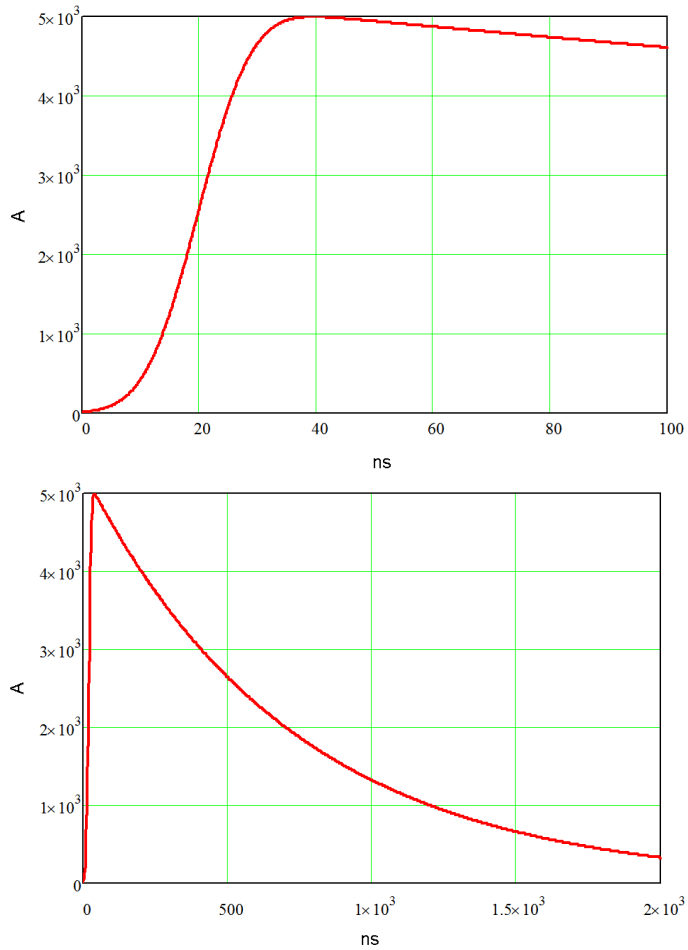


Figure 3: time domain waveform - 20 ns / div and 500 ns / div

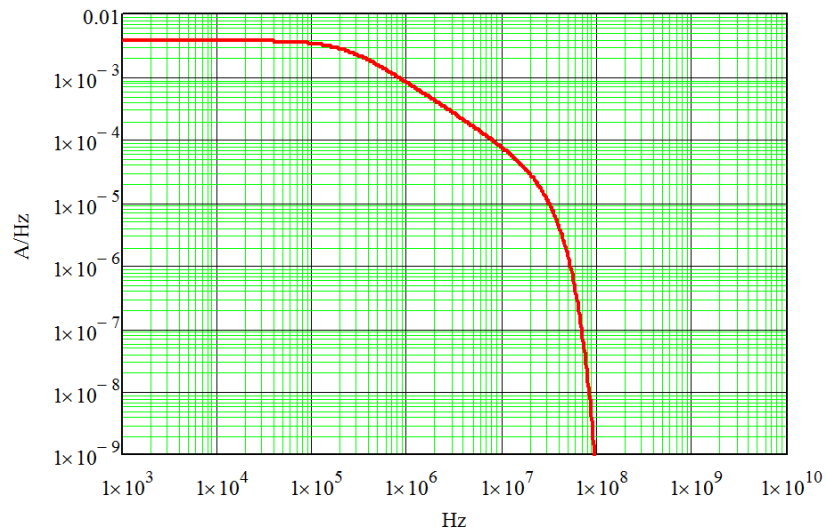
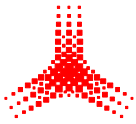


Figure 4: spectrum – log - log representation



3. PCI intermediate pulse 2 μs / 4 ms

The calculated time domain waveform and spectrum of the intermediate pulse are given below.

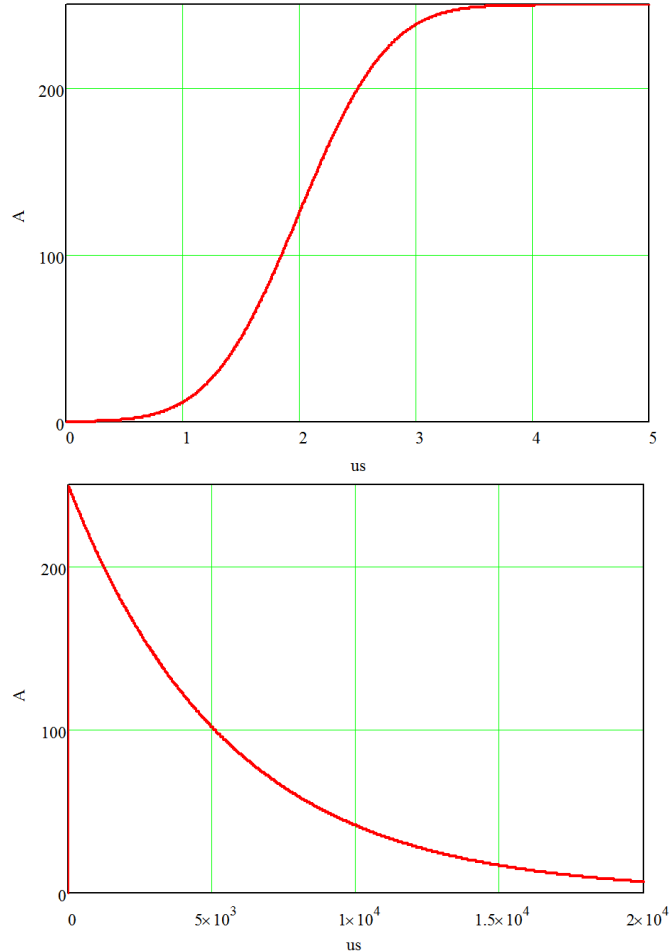


Figure 5: time domain waveform - 1 μs / div and 5 ms / div

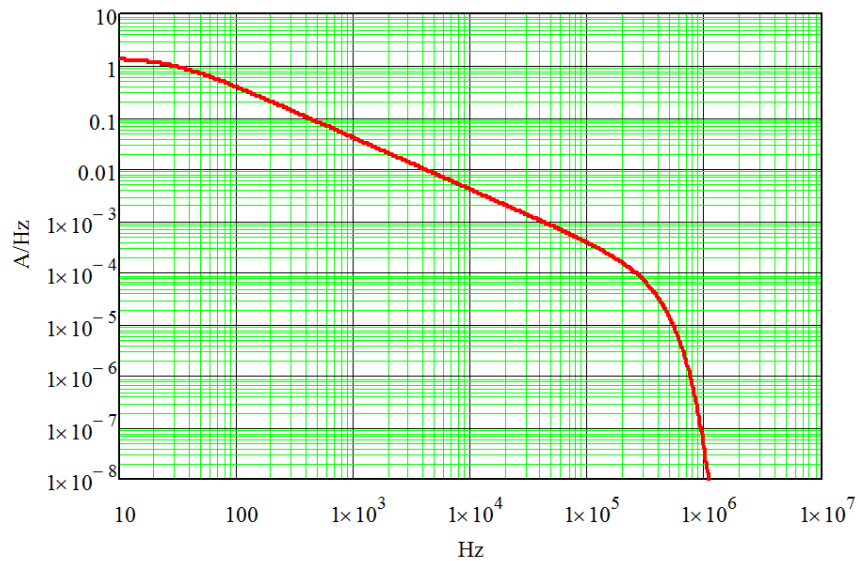
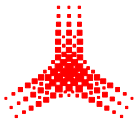


Figure 6: spectrum – log - log representation



4. PCI long pulse 0.2 s / 22 s

The calculated time domain waveform and spectrum of the long pulse are given below.

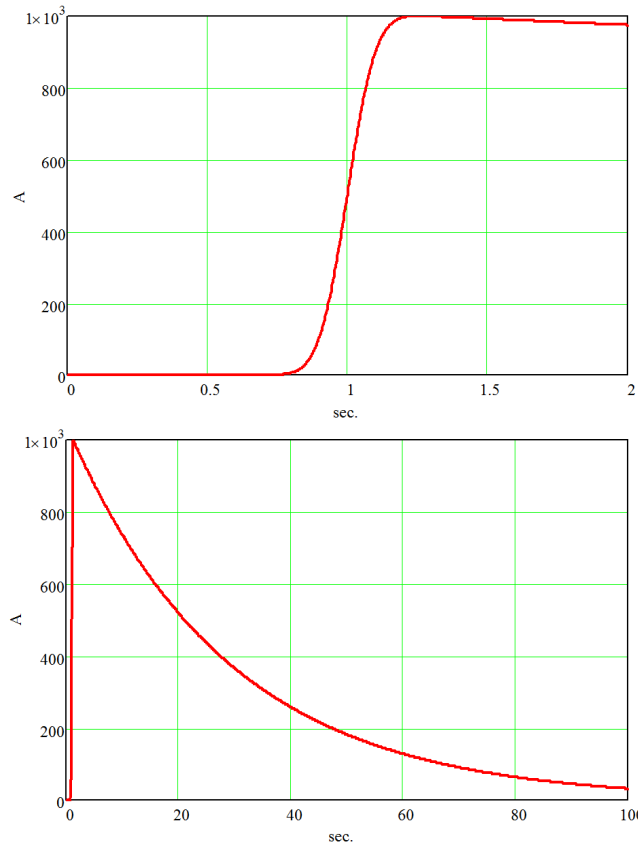


Figure 7: time domain waveform – 0.5 s / div and 20 s / div

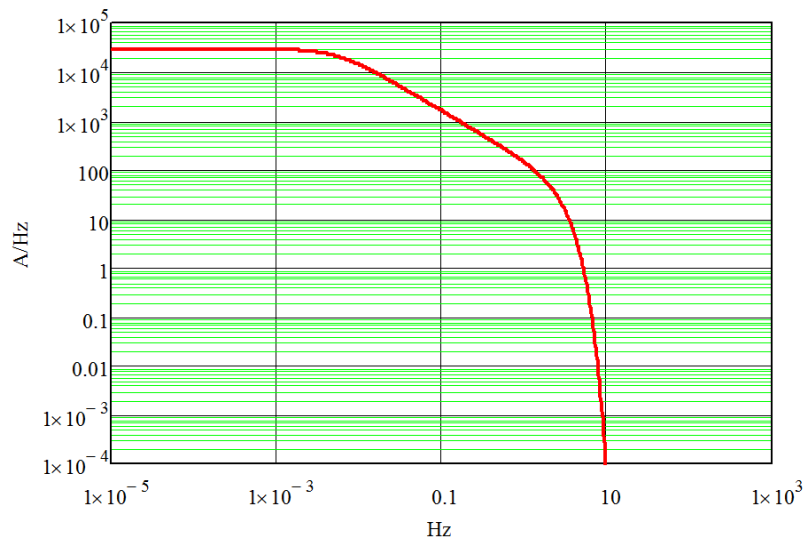


Figure 8: spectrum – log - log representation