

A 1.5 μ s wide pulse will be applied to a resonant circuit which will, in turn, drive a small loop or dipole antenna. The antenna and tank will resonate at their fundamental design frequency of 125 MHz. The necessary bandwidth will be determined by the tank circuit, the characteristic bandwidth of the antenna and the losses associated with the circuit and coupling. It is expected that the antenna will emit a damped sinusoidal waveform of approximately five (5) or more cycles. Performing an FFT on the simulated waveform gives an energy density spectrum with content in the range 50MHz - 200MHz assuming a -20dB threshold criteria. The emission will be single shot with at least 1 hour between emissions for the 2-3 week test period