

NASA Standard Initiator Susceptibility to UHF and S-Band Radio Frequency Power and Lightning Strikes

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Abstract: The NASA Standard Initiator (NSI) is an important piece of pyrotechnic equipment used in many space applications. This presentation will outline the results of a series of tests done at UHF and S-Band frequencies to determine NSI susceptibility to Radio Frequency (RF) power. The results show significant susceptibility to pulsed RF power in the S-Band region. Additional testing with lightning pulses injected into the firing line harness, modelling the indirect effects of a lightning strike to a spacecraft, showed no vulnerability.