

Lessons Learned About Using Commercial Solid Tantalum Capacitors in Military Electronics

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Solid Tantalum MnO₂ capacitors are used in various consumer, military, and space electronics however the levels of required reliability and service life vary with each type of industry. Commercial grade solid tantalum capacitors are mainly targeted for consumer electronics but are also found in many military/space electronics. These commercial grade solid tantalum capacitors are allowed to have some process variation with respect to construction or materials used if they meet the requirements as outlined in their data sheets. However, these process/construction variations can have negative reliability impacts for the end user. Therefore, before using a commercial grade tantalum capacitor in any application it is important to for the end user to understand the implications of using a commercial capacitor in any military or space application.