

MIL STD 981

“Space Level of Not?”

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“A standard for the design, processing, manufacturing and screening of custom electromagnetic devices for space flight applications...” MIL-STD-981 was created to assure that custom magnetics installed in Space Hardware provide highly reliable performance over long periods of time under sometimes harsh environments. Having said that, MIL STD 981 goes on to state that it includes requirements for both Class B and Class S devices. Over the last twenty years, many suppliers have taken sufficient exceptions to this document to render it by default a Class B or B+ standard. No established supplier for Space grade magnetics accepts MIL-STD-981 without exception. Therefore, the question needs to be asked if product that is procured to this document is fully able to meet reliability requirements for critical extended missions lasting decades. We will discuss examples of some of what we perceive as issues with this document and will conclude with our recommendations for improvement.