Applications of Metal Additive Manufacturing to Defense Electronics Systems

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Abstract

Additive Manufacturing, and more specifically Metal Additive Manufacturing (or Metal 3D Printing), is changing the manufacturing industry by lifting some of the design constraints inherent to traditional processes. We will present a feasibility study of a Lattice Structure created by Metal AM applied to a standard ANSI/VITA 48.2 Conduction-cooled Single Board Computer Assembly. Using a technique for which *TEN TECH LLC* holds a USPTO Provisional Patent, a 40% weight reduction was achieved while maintaining dynamics and thermal performance.