

# **An Alternate COTS Approach for Space Missions**

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A three-year technical assessment by the NASA Engineering and Safety Center has paved the way for an alternate approach to the use of Commercial-Off-The-Shelf (COTS) electronic parts, without the need to subject them to screening and lot acceptance testing. The manufacturing industry has evolved immensely in the last 30 years with little adjustments to evaluation methods for Electrical, Electronic, Electromechanical, and Electro-optical (EEEE) COTS parts for space applications. The incorporation of statistical process control enveloped into automated manufacturing methods, result in product with demonstrated reliability equal to or higher than their military-grade counterparts. NASA contends that these “Established COTS parts” can likely be utilized with little to no additional testing where evidence of sufficient quality and reliability exists, with the caveat that the selected parts meet the mission environment and application requirements. NASA’s endeavor to identify “Industry Leading Parts Manufacturers” that produce mass volumes of high reliability COTS products is on its way to fruition.