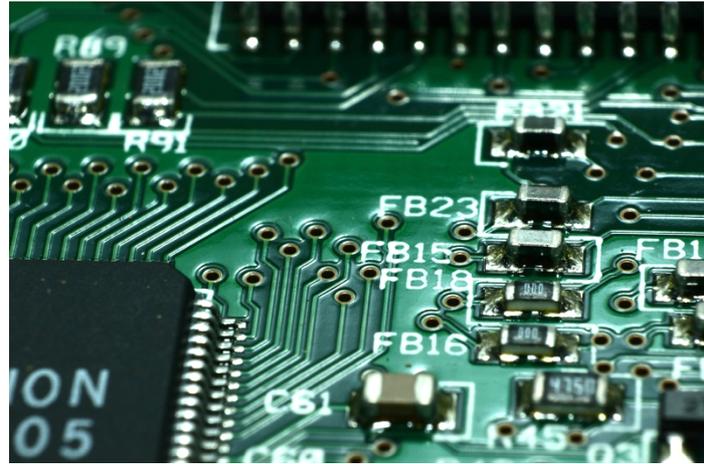


# IFM NANO THRUSTER COTS+

## LOT CONTROLLED COMPONENTS

### IFM NANO THRUSTER

The IFM Nano Thruster was developed for low cost, small satellites featuring **rapid design and lifecycles**. The standard version of the IFM Nano Thruster is based on Commercial-off-the-Shelf (COTS) components. While the design of the thruster has been validated through radiation testing, the usage of COTS components limits the applicability of such results to the individual thrusters.



### IFM NANO THRUSTER COTS+

The IFM Nano Thruster COTS+ is a thruster version which expands on the advantages of the standard IFM Nano Thruster, such as **heritage, low cost** and fast delivery cycles, by introducing a full **lot-control and lot-testing component philosophy**. For this thruster version, large batches of thruster electronics are procured, selected samples of which are then subjected to verification testing including radiation testing. The remaining sets of electronics, from the same batch as the experimentally qualified units, are then used to build the IFM Nano Thruster COTS+. Customer who choose this product will receive an extensive test report on the radiation tests of the lot samples that are representative for their thruster PPUS. By following this lot-controlled philosophy, a maximum of applicability of radiation test results onto the flight units can be guaranteed. The IFM Nano Thruster COTS+ is therefore built to the **higher quality level**, while still delivering identical performance as the space proved IFM Nano Thruster.



#### LOT CONTROL

All EEE components of the IFM Nano Thruster COTS+ are procured in lot-controlled batches. Selected sets of these batches are subjected to radiation testing, so that each thruster delivered to a customer can be traced back to a fully representative qualification model using components from the same batch.



#### FLIGHT HERITAGE

The IFM Nano Thruster COTS+ is an updated version of the space proven IFM Nano Thruster. It is directly building on the heritage, leveraging the proven design and component selection.