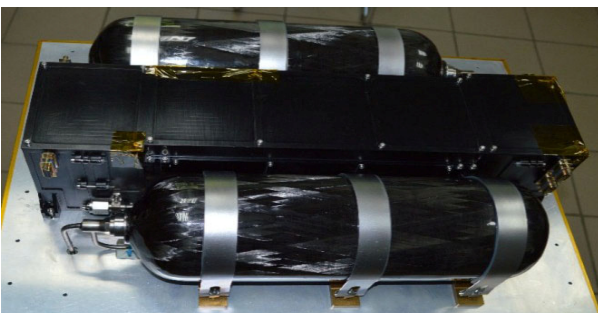
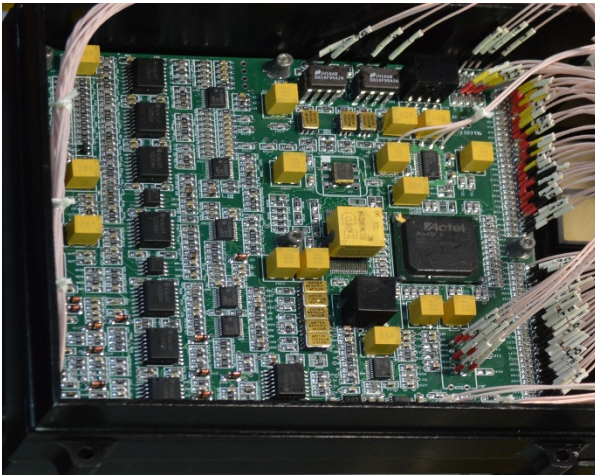


SERAN POWER PROPULSION CONTROL SYSTEM



POWER PROPULSION CONTROL and TELEMETRY UNIT

The goal of this development was to produce a simple, reliable, and inexpensive power and control system for an electric propulsion system. The system should also provide the collection of telemetry and control for the propellant feeding unit. Using an FPGA as a central control element made it possible to make a flexible system that can be easily adapted to any TC/TM interface and propulsion system control algorithm. The widespread use of COTS components made it possible to shorten and simplify the development process and reduce the final cost of the product. This system is ideally suited for use on LEO satellites. The system was launched to the space in 2015



Characteristic	Value	Nominal
Nominal Power, W	50 - 300	250
Input Bus Voltage, V	12-34	28
Output Discharge Voltage, V	150-350	200
Output Discharge Current, A	0.5 – 1.5	1
Analog telemetry channels		18
TM/TC interface	RS485/RS422/MIL-STD1553	
Total efficiency	No less 92%	
Size*	200x360x120	
Mass*	8Kg	
* Including Feeding Unit		

SERAN SYSTEMS
Satellite Propulsion Systems

<http://seransystems.com>
seran@seransystems.com