



UniSat Platform

History

Since the early nineties, activities of designing, ground testing, integration, launch and ground operations have been managed by GAUSS members at the *Scuola di Ingegneria Aerospaziale*, where the UniSat program started under the supervision of Professor Filippo Graziani. The first microsatellite, UniSat, was completely manufactured by the University students and launched in September 2000. It was followed by UniSat-2 (December 2002), UniSat-3 (June 2004), UniSat-4 (July 2006), EduSat (August 2011), UniCubesat-GG (February 2012), UniSat-5 (November 2013), UniSat-6 (in June 2014) and TuPOD (in December 2016). UniSat-7 is planned to be launched in Q4 2019 – Q1 2020.

GAUSS Srl has innovated the idea of launch provider, making the **UniSat satellites themselves launcher platforms as well as carriers of fixed payloads.**

GAUSS Srl has gained valuable experience from several differently shaped and sized satellites' launches. The Company business is mainly related to the design and the manufacturing of micro, nano, pico and femto satellites, intended as CubeSat, PocketQube and releasing platforms such as GPOD (GAUSS Picosatellites Orbital Deployer) and MRFO (Morehead Rome Femtosatellites Orbital Deployer).

Description

UniSat platform, originally conceived as a system for IOD/IOV university experiments, is a BUS widely used in the Space field. It is a complete system able to host many kind of Payloads, for instance:

- Deployer for CubeSats, in order to make the satellite a releasing platform for other satellites;
- Payload weighting up to 15 kg;
- IOD/IOV experiments.



Technical Data

- Dimensions: 50x50x50 mm (max)
- Spacecraft launch mass: 35 kg
- BUS mass: 20 kg
- Payload mass: 15 kg
- 70W total electrical power
- Designed for LEO environment
- 3 to 5 year mission life

Bus Subsystems:

- Structure;
- Thermal control system;
- Onboard Computer (storage and data handling);
- Power System (solar panels, Eps batteries);
- ADCS (according to mission's specifications);
- Telecommunication system (on demand according to mission's specifications);
- Telemetry sensors;
- Software.